

<400> 2551  
 nngccggcca gcctcacatc agtctctccg ccccggggaa ggctcagcac tttaaatega  
 60  
 ggactccact tctggggacg cctgggtcgt tcgcccacca ggcttaggct acgtccatg  
 120  
 ctccccagc aatctctgtc tacacctcct gcggcgccct gccctcctcc gaccctttc  
 180  
 cagccannaa gtccccccac ccttcagag aagcagcctc aaattccaga agtggaggct  
 240  
 ccagcctccc cgcgaggtac cagccccaca gtcttctggg agccattgtg gccagggacg  
 300  
 gcctctggac tgccaggctg ggttggggac cagggaaacat cggctctactc aggtgtgagg  
 360  
 gggcaggtct ggctgcccc aaagttggct ccatcctgga can  
 403

<210> 2552  
 <211> 134  
 <212> PRT  
 <213> Homo sapiens

<400> 2552  
 Xaa Pro Ala Ser Leu Thr Ser Val Ser Pro Pro Arg Gly Arg Leu Ser  
 1 5 10 15  
 Thr Leu Asn Arg Gly Leu His Phe Trp Gly Arg Leu Val Arg Ser Pro  
 20 25 30  
 Thr Arg Pro Arg Leu Arg Ser Met Leu Pro Gln Gln Ser Leu Ser Thr  
 35 40 45  
 Pro Pro Ala Ala Pro Cys Pro Pro Pro Thr Pro Phe Gln Pro Xaa Ser  
 50 55 60  
 Pro Pro Thr Pro Ser Glu Lys Gln Pro Gln Ile Pro Glu Val Glu Ala  
 65 70 75 80  
 Pro Ala Ser Pro Arg Gly Thr Ser Pro Thr Val Phe Trp Glu Pro Leu  
 85 90 95  
 Trp Pro Gly Thr Ala Ser Gly Leu Pro Gly Trp Val Gly Asp Gln Gly  
 100 105 110  
 Thr Ser Val Tyr Ser Gly Val Arg Gly Gln Val Trp Pro Ala Pro Lys  
 115 120 125  
 Leu Ala Pro Ser Trp Thr  
 130

<210> 2553  
 <211> 380  
 <212> DNA  
 <213> Homo sapiens

<400> 2553  
 actagtgtcc ctataagaaa aggaaaggac caagacacag gaaagatgaa gcagagattg  
 60  
 gagagataca gcatgggcca aggagcactg ggagccagca gcagctggaa gaggcaggag  
 120  
 gcctcctccc tagaccgcac aggatgctac tgggtgagcc tgctgtcctg gaaaaggcgt  
 180

gaagtctgcc tgagtgggca ggggcttctg cgcagcacc agcaaggcca aggtggaagg  
 240  
 gacctctctg gccccgttcc tggctccacc ctcagctget ggcaggtggg tcaccaggcc  
 300  
 tctgccc aaa gaaactcctg caggcagctc tggaccccct gtcttacaca ccttctcact  
 360  
 gagcctgcc gcatcccagn  
 380

<210> 2554

<211> 111

<212> PRT

<213> Homo sapiens

<400> 2554

Met	Lys	Gln	Arg	Leu	Glu	Arg	Tyr	Ser	Met	Gly	Gln	Gly	Ala	Leu	Gly
1				5					10					15	
Ala	Ser	Ser	Ser	Trp	Lys	Arg	Gln	Glu	Ala	Ser	Ser	Leu	Asp	Arg	Thr
			20					25				30			
Gly	Cys	Tyr	Trp	Val	Ser	Leu	Leu	Ser	Trp	Lys	Arg	Arg	Glu	Val	Cys
		35				40					45				
Leu	Ser	Gly	Gln	Gly	Leu	Leu	Arg	Ser	Thr	Gln	Gln	Gly	Gln	Gly	Gly
	50				55				60						
Arg	Asp	Pro	Pro	Gly	Pro	Cys	Pro	Gly	Ser	Thr	Leu	Ser	Cys	Trp	Gln
65				70				75						80	
Val	Gly	His	Gln	Ala	Ser	Ala	Gln	Arg	Asn	Ser	Cys	Arg	Gln	Leu	Trp
			85				90				95				
Thr	Pro	Cys	Leu	Thr	His	Leu	Leu	Thr	Glu	Pro	Ala	Ser	Ile	Pro	
			100				105						110		

<210> 2555

<211> 368

<212> DNA

<213> Homo sapiens

<400> 2555

ntccggatgg aaaagtaaag accagcaata gccataaac ccattaacac ataccatata  
 60  
 atgttggttaa tgctgcccg tagttcgggtg gcattcttca tgggcaatag tttaatggga  
 120  
 gataacgcga ataatggtag tgcgttcta gtgtcacag acctggtcac ccaaataga  
 180  
 ggatttatat cctcccatat cctcattttt gtgtcgttg gcctcggcat tgtctttacc  
 240  
 gttgccactc gaggtgtaca gtccgcctc ttcgggcaca tgtggcacct catgtctgat  
 300  
 tcacggaagc aaaagggcac ctccctctcc agctctcaag cattcacagt ggtctctgat  
 360  
 cacgcggn  
 368

<210> 2556

<211> 102

<212> PRT



&lt;213&gt; Homo sapiens

&lt;400&gt; 2556

Met Leu Leu Met Leu Pro Gly Ser Ser Val Ala Phe Phe Met Gly Asn  
 1 5 10 15  
 Ser Leu Met Gly Asp Asn Ala Asn Asn Gly Ser Val Val Leu Val Leu  
 20 25 30  
 Thr Asp Leu Val Thr Gln Ile Glu Gly Phe Ile Ser Ser His Ile Leu  
 35 40 45  
 Ile Phe Val Leu Val Gly Leu Gly Ile Val Phe Thr Val Ala Thr Arg  
 50 55 60  
 Gly Val Gln Phe Arg Leu Phe Gly His Met Trp His Leu Met Leu Asp  
 65 70 75 80  
 Ser Arg Lys Gln Lys Gly Thr Ser Leu Ser Ser Ser Gln Ala Phe Thr  
 85 90 95  
 Val Gly Leu Asp His Ala  
 100

&lt;210&gt; 2557

&lt;211&gt; 408

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2557

atcactactc cagttggtga ggcagttctg ggtcgcatct taaatgtgat cggtgagccg  
 60  
 attgatgaga tgggcccagt taacgcgaaa gaaaaatggg aaattcaccg tccagctcct  
 120  
 aaattcgaag accaagctgt taaagctgag atgttgatga ctggtattaa ggtcgttgat  
 180  
 cttcttgac cttacgcaaa ggggtggcaag atcggtctct tcggtggtgc gggcgtaggt  
 240  
 aaaacagttt tgattcaaga gttgattcgt aacatcgcta ctgagcacgg tggatactct  
 300  
 gtattcgag gtgtcggcga gcgtactcgc gaaggtaacg atctttgggt tgagatgaaa  
 360  
 gaatcaggcg ttatcgcaaa gaccgcactt gtattcggtc agatgaat  
 408

&lt;210&gt; 2558

&lt;211&gt; 136

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2558

Ile Thr Thr Pro Val Gly Glu Ala Val Leu Gly Arg Ile Leu Asn Val  
 1 5 10 15  
 Ile Gly Glu Pro Ile Asp Glu Met Gly Pro Val Asn Ala Lys Glu Lys  
 20 25 30  
 Trp Glu Ile His Arg Pro Ala Pro Lys Phe Glu Asp Gln Ala Val Lys  
 35 40 45  
 Ala Glu Met Leu Met Thr Gly Ile Lys Val Val Asp Leu Leu Ala Pro  
 50 55 60  
 Tyr Ala Lys Gly Gly Lys Ile Gly Leu Phe Gly Gly Ala Gly Val Gly

```

65          70          75          80
Lys Thr Val Leu Ile Gln Glu Leu Ile Arg Asn Ile Ala Thr Glu His
          85          90          95
Gly Gly Tyr Ser Val Phe Ala Gly Val Gly Glu Arg Thr Arg Glu Gly
          100          105          110
Asn Asp Leu Trp Val Glu Met Lys Glu Ser Gly Val Ile Ala Lys Thr
          115          120          125
Ala Leu Val Phe Gly Gln Met Asn
          130          135

```

&lt;210&gt; 2559

&lt;211&gt; 389

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2559

```

tccttgaaga tgaacatctt tcggctgcaa actgaaaagg atttgaatcc tcagaaaaca
60
gcttttctga aagatcgact gaatgcaata caggaagagc attctaagga cctgaagctg
120
ttgcatctcg aagttatgaa ttgcgccag caactgagag ctgtaaaaga ggaagaagac
180
aaggcacaag atgaggtgca aaggttgact gccactctga agattgcctc gcagacaaag
240
aagaatgcag ccattattga agaggaactg aagaccacaa aacgtaaaat gaaccttaaa
300
attcaagagc ttctagagat gacctcattt ccaagttggt tgaagaaaat aagaacctgc
360
aggatatctt tcaacaggaa catgaagaa
389

```

&lt;210&gt; 2560

&lt;211&gt; 129

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2560

```

Ser Leu Lys Met Asn Ile Phe Arg Leu Gln Thr Glu Lys Asp Leu Asn
1      5      10      15
Pro Gln Lys Thr Ala Phe Leu Lys Asp Arg Leu Asn Ala Ile Gln Glu
20     25     30
Glu His Ser Lys Asp Leu Lys Leu Leu His Leu Glu Val Met Asn Leu
35     40     45
Arg Gln Gln Leu Arg Ala Val Lys Glu Glu Glu Asp Lys Ala Gln Asp
50     55     60
Glu Val Gln Arg Leu Thr Ala Thr Leu Lys Ile Ala Ser Gln Thr Lys
65     70     75     80
Lys Asn Ala Ala Ile Ile Glu Glu Glu Leu Lys Thr Thr Lys Arg Lys
85     90     95
Met Asn Leu Lys Ile Gln Glu Leu Leu Glu Met Thr Ser Phe Pro Ser
100    105    110
Trp Leu Lys Lys Ile Arg Thr Cys Arg Ile Ser Phe Asn Arg Asn Met
115    120    125
Lys

```

<210> 2561  
 <211> 429  
 <212> DNA  
 <213> Homo sapiens

<400> 2561  
 nnactcacca ctgtggttct actatgcctt ctgaccccggt cttggacttc aactgggaga  
 60  
 atgtggagcc atttgaacag gctcctcttc tggagcatat tttcttctgt cacttgtaga  
 120  
 aaagctgtat tggattgtga ggcaatgaaa acaaatgaat tcccttctcc atgtttggac  
 180  
 tcaaagacta aggtggttat gaagggtcaa aatgtatcta tgttttgttc ccataagaac  
 240  
 aaatcactgc agatcaccta ttcattgttt cgacgtaaga cacacctggg aaccaggat  
 300  
 ggaaaagggtg aacctgcgat ttttaaccta agcatcacag aagcccatga atcaggcccc  
 360  
 taaaaatgca aagcccaagt taccagctgt tcaaaataca gtcgtgactt cagcttcacg  
 420  
 attgtcgac  
 429

<210> 2562  
 <211> 143  
 <212> PRT  
 <213> Homo sapiens

<400> 2562  
 Xaa Leu Thr Thr Val Val Leu Leu Cys Leu Leu Thr Pro Ser Trp Thr  
 1 5 10 15  
 Ser Thr Gly Arg Met Trp Ser His Leu Asn Arg Leu Leu Phe Trp Ser  
 20 25 30  
 Ile Phe Ser Ser Val Thr Cys Arg Lys Ala Val Leu Asp Cys Glu Ala  
 35 40 45  
 Met Lys Thr Asn Glu Phe Pro Ser Pro Cys Leu Asp Ser Lys Thr Lys  
 50 55 60  
 Val Val Met Lys Gly Gln Asn Val Ser Met Phe Cys Ser His Lys Asn  
 65 70 75 80  
 Lys Ser Leu Gln Ile Thr Tyr Ser Leu Phe Arg Arg Lys Thr His Leu  
 85 90 95  
 Gly Thr Gln Asp Gly Lys Gly Glu Pro Ala Ile Phe Asn Leu Ser Ile  
 100 105 110  
 Thr Glu Ala His Glu Ser Gly Pro Tyr Lys Cys Lys Ala Gln Val Thr  
 115 120 125  
 Ser Cys Ser Lys Tyr Ser Arg Asp Phe Ser Phe Thr Ile Val Asp  
 130 135 140

<210> 2563  
 <211> 267  
 <212> DNA  
 <213> Homo sapiens

&lt;400&gt; 2563

ggatcccaga cgagtgcctgg cagcagtatg ggggccgtgg gggcgacggc caccgtcagc  
 60  
 accccgggtca ccatccagaa catgacctcc tcttatgtca ccatcacatc ccatgtcctt  
 120  
 aaggccttta ccctttggga acaggcagag gccctcacia ggaagaacaa agaattcttt  
 180  
 gctcagctca gcacaaaagt gcgcgtgttg gccctcaaca gcagcctggg ggacctggg  
 240  
 cactacacaa ggcagggcct ccagcgg  
 267

&lt;210&gt; 2564

&lt;211&gt; 89

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2564

Gly	Ser	Gln	Thr	Ser	Ala	Gly	Ser	Ser	Met	Gly	Ala	Val	Gly	Ala	Thr
1				5					10					15	
Ala	Thr	Val	Ser	Thr	Pro	Val	Thr	Ile	Gln	Asn	Met	Thr	Ser	Ser	Tyr
			20					25					30		
Val	Thr	Ile	Thr	Ser	His	Val	Leu	Lys	Ala	Phe	Thr	Leu	Trp	Glu	Gln
		35					40					45			
Ala	Glu	Ala	Leu	Thr	Arg	Lys	Asn	Lys	Glu	Phe	Phe	Ala	Gln	Leu	Ser
		50				55					60				
Thr	Lys	Val	Arg	Val	Leu	Ala	Leu	Asn	Ser	Ser	Leu	Val	Asp	Leu	Val
65					70				75					80	
His	Tyr	Thr	Arg	Gln	Gly	Leu	Gln	Arg							
					85										

&lt;210&gt; 2565

&lt;211&gt; 333

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2565

cttcgcactg ctccgcgagt tcttggggga gtgagcacag cgcgtaagct cagccacgtg  
 60  
 tggttcgaat tcgattcctt ggtcaatgcc cgtgacgtgg gcggaatccc ccccccgat  
 120  
 gggccgggtga aatcccagcg actgatccgc agcgacaacc tgcaggccct caccgaggcc  
 180  
 gacatcgccc agttgcagca actcgggtgc tccgatgtgg tcgatctgcg ttccacctat  
 240  
 gaggtggcca gcgaggggcc ggggccgctg accggggcgtg ggggtgaccat ccacccccat  
 300  
 tccttcctgc ccgaccagca cgccaatgtg cac  
 333

&lt;210&gt; 2566

&lt;211&gt; 111

&lt;212&gt; PRT

<213> Homo sapiens

<400> 2566

```

Leu Arg Thr Ala Pro Arg Val Leu Gly Gly Val Ser Thr Ala Arg Lys
 1           5           10           15
Leu Ser His Val Trp Phe Glu Phe Asp Ser Leu Val Asn Ala Arg Asp
           20           25           30
Val Gly Gly Ile Pro Thr Pro Asp Gly Pro Val Lys Ser Gln Arg Leu
           35           40           45
Ile Arg Ser Asp Asn Leu Gln Ala Leu Thr Glu Ala Asp Ile Ala Gln
           50           55           60
Leu Gln Gln Leu Gly Val Ser Asp Val Val Asp Leu Arg Ser Thr Tyr
65           70           75           80
Glu Val Ala Ser Glu Gly Pro Gly Pro Leu Thr Gly Arg Gly Val Thr
           85           90           95
Ile His Pro His Ser Phe Leu Pro Asp Gln His Ala Asn Val His
           100           105           110

```

<210> 2567

<211> 396

<212> DNA

<213> Homo sapiens

<400> 2567

```

ngaattcaaa ctggtgttcg tatgggccat aagcaaggta catatacgat gcgttttaga
60
agccagttca cagatcaacg tctattcgga accgatcaat ttagtattgg tgggcgctat
120
tctgtacgag gttttagtgg agaagaaacc ttaagagggtg actcgggcta ttatgtacaa
180
aatgaatggg cattaccatt tagaaaacaa caaattactc catatgtagg gatagatatt
240
ggacatgtat gggggccatc tacagaaact caattaggta ataccttaat tgggtggtgta
300
gttggtgtac gtggtatggt tggtgacgat gtaaaactatg atgtatcact aggaacacca
360
attaagaaac cagaagggtt tgatacagat acgcgt
396

```

<210> 2568

<211> 132

<212> PRT

<213> Homo sapiens

<400> 2568

```

Xaa Ile Gln Thr Gly Val Arg Met Gly His Lys Gln Gly Thr Tyr Thr
 1           5           10           15
Met Arg Phe Arg Ser Gln Phe Thr Asp Gln Arg Leu Phe Gly Thr Asp
           20           25           30
Gln Phe Ser Ile Gly Gly Arg Tyr Ser Val Arg Gly Phe Ser Gly Glu
           35           40           45
Glu Thr Leu Arg Gly Asp Ser Gly Tyr Tyr Val Gln Asn Glu Trp Ala
           50           55           60
Leu Pro Phe Arg Lys Gln Gln Ile Thr Pro Tyr Val Gly Ile Asp Ile

```

```

65          70          75          80
Gly His Val Trp Gly Pro Ser Thr Glu Thr Gln Leu Gly Asn Thr Leu
      85          90          95
Ile Gly Gly Val Val Gly Val Arg Gly Met Val Gly Asp Asp Val Asn
      100          105          110
Tyr Asp Val Ser Leu Gly Thr Pro Ile Lys Lys Pro Glu Gly Phe Asp
      115          120          125
Thr Asp Thr Arg
      130

```

&lt;210&gt; 2569

&lt;211&gt; 330

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2569

```

cttgctgctg gtgctgatgt gtccatgatt ggccagttcg gcgctcggttt ctactctgcc
60
tacctcgctcg ccgatagagt tgctcgtgacc accaagcaca acgatgacga gcagtacgtg
120
tgggagtccc aagcggggcgg gtcgttcact gttactcgtg acacgtcagg ggagcagctt
180
ggcagggggca ctaagatcac actgttcctc aaggacgatc agctggagta ccttgaggag
240
cgtcgcctca aggatctggt caagaagcac tctgagttca tcagctaccc catctccctg
300
tggactgaaa agacaacaga gaaggaaatt
330

```

&lt;210&gt; 2570

&lt;211&gt; 110

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2570

```

Leu Ala Ala Gly Ala Asp Val Ser Met Ile Gly Gln Phe Gly Val Gly
1          5          10          15
Phe Tyr Ser Ala Tyr Leu Val Ala Asp Arg Val Val Val Thr Thr Lys
      20          25          30
His Asn Asp Asp Glu Gln Tyr Val Trp Glu Ser Gln Ala Gly Gly Ser
      35          40          45
Phe Thr Val Thr Arg Asp Thr Ser Gly Glu Gln Leu Gly Arg Gly Thr
      50          55          60
Lys Ile Thr Leu Phe Leu Lys Asp Asp Gln Leu Glu Tyr Leu Glu Glu
65          70          75          80
Arg Arg Leu Lys Asp Leu Val Lys Lys His Ser Glu Phe Ile Ser Tyr
      85          90          95
Pro Ile Ser Leu Trp Thr Glu Lys Thr Thr Glu Lys Glu Ile
      100          105          110

```

&lt;210&gt; 2571

&lt;211&gt; 335

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2571

gaattcgcca atgttttctc cggtatgggc tccacagtaa cccttatcgg cgcgtccct  
 60  
 gtgtcctta aacatctcga taatgaacta tctgagctct ttactgagat cgctcgggag  
 120  
 aaatgggatg tccgttttagg gcagggaaacg acagctatcg accaggtgga gaagcagcgt  
 180  
 gaagatgggt cttcctactt cgaaaccacc attacatttg aagacggcag cactgttacc  
 240  
 ggtgacgcac tctagttgc taccggacgt acccctaaca ccgaccgcct tggcctcgac  
 300  
 aatggttccg gtgtgaaggt tgaaagggga cgcgt  
 335

&lt;210&gt; 2572

&lt;211&gt; 111

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2572

Glu	Phe	Ala	Asn	Val	Phe	Ser	Gly	Met	Gly	Ser	Thr	Val	Thr	Leu	Ile
1				5					10					15	
Gly	Arg	Ser	Pro	Val	Leu	Leu	Lys	His	Leu	Asp	Asn	Glu	Leu	Ser	Glu
			20					25					30		
Leu	Phe	Thr	Glu	Ile	Ala	Arg	Glu	Lys	Trp	Asp	Val	Arg	Leu	Gly	Gln
		35					40					45			
Gly	Thr	Thr	Ala	Ile	Asp	Gln	Val	Glu	Lys	Gln	Arg	Glu	Asp	Gly	Ser
		50				55					60				
Ser	Tyr	Phe	Glu	Thr	Thr	Ile	Thr	Phe	Glu	Asp	Gly	Ser	Thr	Val	Thr
65					70				75					80	
Gly	Asp	Ala	Phe	Leu	Val	Ala	Thr	Gly	Arg	Thr	Pro	Asn	Thr	Asp	Arg
			85					90					95		
Leu	Gly	Leu	Asp	Asn	Gly	Ser	Gly	Val	Lys	Val	Glu	Arg	Gly	Arg	
			100					105					110		

&lt;210&gt; 2573

&lt;211&gt; 460

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2573

gtcgacaagt accggggcat tgtggttatg gggacggtag atctgggccg tctcgtcagg  
 60  
 gccggatcca taccggaccg ttctcgtcagg gtggtcggac atcgacgaca ccgcagatgc  
 120  
 cgagacgacg ttgatacgtc caccggcgcg gtccgtgatc cagcccgctg tcgccgttgc  
 180  
 cgccactggc acgatgaggg ccatcaccga gaagagaacg gccaccactc gcagaccacc  
 240  
 tcgtcccaga agagcgagga cgaaggcgat gacggcgatg accagagccg gtacagccaa  
 300  
 cgatcccacc agaacggagg agatgaaggt gagggcattg tgtgagggga ggatcgcggc  
 360

cactgaccac gccagtaccg gcagggtcag gatcagcccc acgagaccgg aagtgatgcg  
420  
tagccaggaa tgacgggagg ttttcgtgtc agccacgcgt  
460

<210> 2574

<211> 105

<212> PRT

<213> Homo sapiens

<400> 2574

Met	Gly	Thr	Val	Asp	Leu	Gly	Arg	Leu	Val	Arg	Ala	Gly	Ser	Ile	Pro
1				5				10					15		
Asp	Arg	Phe	Val	Arg	Val	Val	Gly	His	Arg	Arg	His	Arg	Arg	Cys	Arg
		20					25				30				
Asp	Asp	Val	Asp	Thr	Ser	Thr	Gly	Ala	Val	Arg	Asp	Pro	Arg	Arg	Arg
		35					40				45				
Arg	Arg	Cys	Arg	His	Trp	His	Asp	Glu	Gly	His	His	Arg	Glu	Glu	Asn
		50				55				60					
Gly	His	His	Ser	Gln	Thr	Thr	Ser	Ser	Gln	Lys	Ser	Glu	Asp	Glu	Gly
65				70					75				80		
Asp	Asp	Gly	Asp	Asp	Gln	Ser	Arg	Tyr	Ser	Gln	Arg	Ser	His	Gln	Asn
				85				90					95		
Gly	Gly	Asp	Glu	Gly	Glu	Gly	Ile	Val							
			100				105								

<210> 2575

<211> 3954

<212> DNA

<213> Homo sapiens

<400> 2575

nngacagggg ggaagggagg ggagccagca gggaggagga ggccagggcc cgccccacag  
60  
ccactctcgc gcctccgaac agccacaggg gcaaagccct gtcaccccca ggatccggtc  
120  
atcagggaaa gaggacaggg agaccagaag agggccagct gggacgaggg ggcggacgcc  
180  
caggaggcaa cttctgagac gcagctcctg agaggggagc ggaccaggcg cgggaggcca  
240  
gagggggcac agagaacaaa cccctcaga agtgaagagg agagcggaag gaaccgagag  
300  
gggacggaca ggagctgagg aggaaagagg aggggagagg ggtcaggcca ggcagccaag  
360  
gagaagacgt gtggccgggg gctatcagaa ggaaactggg acggacgggc cgggctcggg  
420  
ctgtcctgtg gagcagcagc atccccgggg ccggcagagg cgccagtggc tgggcgggat  
480  
gagtctctga gggccactgt ggagcgcccc gccatggccc cccgcaccct ctggagctgc  
540  
tacctctgct gcctgctgac ggcagctgca ggggcccga gctaccctcc tcgaggtttc  
600  
agcctctaca caggttccag tggggccctc agccccgggg ggccccaggc ccagattgcc  
660



ccccgccag ccagccgcca caggaactgg tgtgcctacg tggtgacccg gacagtgagc  
720  
tgtgtccttg aggatggagt ggagacatat gtcaagtacc agccttgtgc ctggggccag  
780  
ccccagtgtc cccaaagcat catgtaccgc cgcttcctcc gccctcgcta ccgtgtggcc  
840  
tacaagacag tgaccgacat ggagtggagg tgctgtcagg gttatggggg cgatgactgt  
900  
gctgagagtc ccgctccagc gctggggcct gcgtcttcca caccacggcc cctggcccgg  
960  
cctgccccgc ccaacctctc tggctccagt gcaggcagcc ccctcagtgg actgggggga  
1020  
gaaggtcctg gggagtcaga gaaggtgcag cagctggagg aacaggtgca gagcctgacc  
1080  
aaggagctgc aaggcctgcg gggcgtcctg caaggactga gcgggcgcct ggagaggat  
1140  
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<210> 2576

<211> 1016

<212> PRT

<213> Homo sapiens

<400> 2576

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Thr	Gly	Ser	Ser	Gly	Ala	Leu	Ser	Pro	Gly	Gly	Pro	Gln	Ala	Gln	Ile
		35					40					45			
Ala	Pro	Arg	Pro	Ala	Ser	Arg	His	Arg	Asn	Trp	Cys	Ala	Tyr	Val	Val
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Thr	Arg	Thr	Val	Ser	Cys	Val	Leu	Glu	Asp	Gly	Val	Glu	Thr	Tyr	Val
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Lys	Tyr	Gln	Pro	Cys	Ala	Trp	Gly	Gln	Pro	Gln	Cys	Pro	Gln	Ser	Ile
				85				90						95	
Met	Tyr	Arg	Arg	Phe	Leu	Arg	Pro	Arg	Tyr	Arg	Val	Ala	Tyr	Lys	Thr
			100					105					110		
Val	Thr	Asp	Met	Glu	Trp	Arg	Cys	Cys	Gln	Gly	Tyr	Gly	Gly	Asp	Asp
		115					120					125			
Cys	Ala	Glu	Ser	Pro	Ala	Pro	Ala	Leu	Gly	Pro	Ala	Ser	Ser	Thr	Pro
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Arg	Pro	Leu	Ala	Arg	Pro	Ala	Arg	Pro	Asn	Leu	Ser	Gly	Ser	Ser	Ala
145					150					155					160
Gly	Ser	Pro	Leu	Ser	Gly	Leu	Gly	Gly	Glu	Gly	Pro	Gly	Glu	Ser	Glu
			165					170						175	
Lys	Val	Gln	Gln	Leu	Glu	Glu	Gln	Val	Gln	Ser	Leu	Thr	Lys	Glu	Leu
			180					185					190		
Gln	Gly	Leu	Arg	Gly	Val	Leu	Gln	Gly	Leu	Ser	Gly	Arg	Leu	Ala	Glu
		195					200					205			
Asp	Val	Gln	Arg	Ala	Val	Glu	Thr	Ala	Phe	Asn	Gly	Arg	Gln	Gln	Pro
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Ala	Asp	Ala	Ala	Ala	Arg	Pro	Gly	Val	His	Glu	Thr	Leu	Asn	Glu	Ile
225					230					235					240
Gln	His	Gln	Leu	Gln	Leu	Leu	Asp	Thr	Arg	Val	Ser	Thr	His	Asp	Gln
			245					250						255	
Glu	Leu	Gly	His	Leu	Asn	Asn	His	His	Gly	Gly	Ser	Ser	Ser	Ser	Gly
		260					265						270		
Gly	Ser	Arg	Ala	Pro	Ala	Pro	Ala	Ser	Ala	Pro	Pro	Gly	Pro	Ser	Glu
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Glu	Leu	Leu	Arg	Gln	Leu	Glu	Gln	Arg	Leu	Gln	Glu	Ser	Cys	Ser	Val
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Cys	Leu	Ala	Gly	Leu	Asp	Gly	Phe	Arg	Arg	Gln	Gln	Gln	Glu	Asp	Arg
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Glu	Arg	Leu	Arg	Ala	Met	Glu	Lys	Leu	Leu	Ala	Ser	Val	Glu	Glu	Arg
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Gln	Arg	His	Leu	Ala	Gly	Leu	Ala	Val	Gly	Arg	Arg	Pro	Pro	Gln	Glu
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Cys	Cys	Ser	Pro	Glu	Leu	Gly	Arg	Arg	Leu	Ala	Glu	Leu	Glu	Arg	Arg

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 Thr Glu Leu Gly Gly Ala Ala Gly Gln Gly Gly His Pro Pro Gly Tyr  
 385 390 395 400  
 Thr Ser Leu Ala Ser Arg Leu Ser Arg Leu Glu Asp Arg Phe Asn Ser  
 405 410 415  
 Thr Leu Gly Pro Ser Glu Glu Gln Glu Glu Ser Trp Pro Gly Ala Pro  
 420 425 430  
 Gly Gly Leu Ser His Trp Leu Pro Ala Ala Arg Gly Arg Leu Glu Gln  
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 450 455 460  
 Asp Leu Leu Glu Glu Gln Val Ala Gly Ala Met Gln Ala Cys Gly Gln  
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 610 615 620  
 Pro Leu Asp Gly Phe Ser Val Phe Gly Gly Ser Ser Gly Ser Ala Leu  
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 Pro Ser Leu Glu Gly Arg Leu Gly Arg Leu Glu Gly Val Cys Glu Arg  
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 740 745 750  
 Arg His Val Ala Gly Leu Trp Ala Gly Leu Arg Glu Thr Asn Thr Thr  
 755 760 765  
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 Gly Leu Gly Arg Arg Leu Gly Ala Leu Asn Ser Ser Leu Gln Leu Leu

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785              790              795              800
Glu Asp Arg Leu His Gln Leu Ser Leu Lys Asp Leu Thr Gly Pro Ala
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Gly Glu Ala Gly Pro Pro Gly Pro Pro Gly Leu Gln Gly Pro Pro Gly
              820              825              830
Pro Ala Gly Pro Pro Gly Ser Pro Gly Lys Asp Gly Gln Glu Gly Pro
              835              840              845
Ile Gly Pro Pro Gly Pro Gln Gly Glu Gln Gly Val Glu Gly Ala Pro
              850              855              860
Ala Ala Pro Val Pro Gln Val Ala Phe Ser Ala Ala Leu Ser Leu Pro
865              870              875              880
Arg Ser Glu Pro Gly Thr Val Pro Phe Asp Arg Val Leu Leu Asn Asp
              885              890              895
Gly Gly Tyr Tyr Asp Pro Glu Thr Gly Val Phe Thr Ala Pro Leu Ala
              900              905              910
Gly Arg Tyr Leu Leu Ser Ala Val Leu Thr Gly His Arg His Glu Lys
              915              920              925
Val Glu Ala Val Leu Ser Arg Ser Asn Gln Gly Val Ala Arg Val Asp
              930              935              940
Ser Gly Gly Tyr Glu Pro Glu Gly Leu Glu Asn Lys Pro Val Ala Glu
945              950              955              960
Ser Gln Pro Ser Pro Gly Thr Leu Gly Val Phe Ser Leu Ile Leu Pro
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Leu Gln Ala Gly Asp Thr Val Cys Val Asp Leu Val Met Gly Gln Leu
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&lt;210&gt; 2577

&lt;211&gt; 343

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2577

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343

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&lt;210&gt; 2578

&lt;211&gt; 100

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2578

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Val His Ser Ser Pro Ala Ala Ala Asp Leu Glu Pro Ser Val Ala Lys
      20             25             30
Cys Leu Leu Ser Lys Leu Arg Gly Ser Thr Gly Ala Gly Gln Thr Leu
      35             40             45
Leu Pro Pro Ala Gly Gln Cys Ser Leu Gly Tyr Arg Ala Leu Ser Pro
      50             55             60
Thr Val Thr Pro Glu Trp Ile Pro Ala Leu Pro Ala Leu Gly Ser Gln
65             70             75             80
Trp Gly Leu Gly Ala Ser Gln Gly Gln His Glu Pro Leu Ala Arg Val
      85             90             95
Ser Asn Arg Pro
      100

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&lt;210&gt; 2579

&lt;211&gt; 420

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2579

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420

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&lt;210&gt; 2580

&lt;211&gt; 140

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2580

```

Xaa Met Ile Phe Arg Ser Cys Ile Asn Leu Ala Ala Phe Ile Ile Ile
 1             5             10             15
Val Phe Ser Tyr Gly Ser Met Phe Tyr Ser Val His Gln Ser Ala Ile
      20             25             30
Thr Ala Thr Glu Ile Arg Asn Gln Val Lys Lys Glu Met Ile Leu Ala
      35             40             45
Lys Arg Phe Phe Phe Ile Val Phe Thr Asp Ala Leu Cys Trp Ile Pro
      50             55             60
Ile Phe Val Val Lys Phe Leu Ser Leu Leu Gln Val Glu Ile Pro Gly
65             70             75             80
Thr Ile Thr Ser Trp Val Val Ile Phe Ile Leu Pro Ile Asn Ser Ala

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			85					90				95			
Leu	Asn	Pro	Ile	Leu	Tyr	Thr	Leu	Thr	Thr	Arg	Pro	Phe	Lys	Glu	Met
			100					105					110		
Ile	His	Arg	Phe	Trp	Tyr	Asn	Tyr	Arg	Gln	Arg	Lys	Ser	Met	Asp	Ser
		115					120					125			
Lys	Gly	Gln	Lys	Thr	Glu	Ala	Gly	Val	Cys	Ser	Arg				
	130						135				140				

&lt;210&gt; 2581

&lt;211&gt; 459

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2581

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459

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&lt;210&gt; 2582

&lt;211&gt; 153

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2582

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Ser	Gln	Leu	Arg	Arg	Pro	Val	His	Val	Arg	Ala	Glu	Gly	Ala	Asp	Thr
		20					25					30			
Gln	Thr	Thr	Val	Pro	Asp	Thr	Gln	Gln	Phe	Val	Tyr	Gln	Ala	His	Ser
	35					40					45				
Leu	Asp	Lys	Ile	Glu	Ile	Ile	Gly	Arg	Ile	Leu	Gln	Ala	Asn	Asp	Val
	50				55					60					
Glu	Lys	Val	Ile	Ile	Phe	Cys	Arg	Thr	Lys	Arg	Ala	Cys	Gln	Arg	Leu
65			70					75				80			
Ser	Asp	Asp	Leu	Asp	Arg	Gly	Phe	Lys	Thr	Arg	Ala	Ile	His	Gly	
		85				90					95				
Asp	Leu	Thr	Gln	Val	Ala	Arg	Glu	Lys	Ala	Leu	Lys	Lys	Phe	Arg	His
	100					105					110				
Gly	Glu	Ala	Thr	Ile	Leu	Val	Ala	Thr	Asp	Val	Ala	Ala	Arg	Gly	Ile
	115				120						125				
Asp	Val	Thr	Gly	Val	Ser	His	Val	Ile	Asn	His	Glu	Cys	Pro	Glu	Asp

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 <211> 7098  
 <212> DNA  
 <213> Homo sapiens

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 1320



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&lt;210&gt; 2584

&lt;211&gt; 1186

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2584

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Thr	Pro	Gly	Cys	Asp	Gly	Ser	Gly	His	Val	Ser	Gly	Lys	Tyr	Ala	Arg
		35					40					45			
His	Arg	Ser	Val	Tyr	Gly	Cys	Pro	Leu	Ala	Lys	Lys	Arg	Lys	Thr	Gln
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Asp	Lys	Gln	Pro	Gln	Glu	Pro	Ala	Pro	Lys	Arg	Lys	Pro	Phe	Ala	Val
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Lys	Ala	Asp	Ser	Ser	Val	Asp	Glu	Cys	Asp	Asp	Ser	Asp	Gly	Thr	
			85					90					95		
Glu	Asp	Met	Asp	Glu	Lys	Glu	Glu	Asp	Glu	Gly	Glu	Glu	Tyr	Ser	Glu
		100						105					110		
Asp	Asn	Asp	Glu	Pro	Gly	Asp	Glu	Asp	Glu	Glu	Asp	Glu	Glu	Gly	Asp

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Arg Glu Gly Glu Glu Glu Ile Glu Glu Glu Asp Glu Asp Asp Asp Glu		
130	135	140
Asp Gly Glu Asp Val Glu Asp Glu Glu Glu Glu Glu Glu Glu Glu Glu		
145	150	155
Glu Glu Glu Glu Glu Glu Glu Asn Glu Asp His Gln Met Asn Cys His		160
165	170	175
Asn Thr Arg Ile Met Gln Asp Thr Glu Lys Asp Asp Asn Asn Ser Asp		
180	185	190
Glu Tyr Asp Asn Tyr Asp Glu Leu Val Ala Lys Ser Leu Leu Asn Leu		
195	200	205
Gly Lys Ile Ala Glu Asp Ala Ala Tyr Arg Ala Arg Thr Glu Ser Glu		
210	215	220
Met Asn Ser Asn Thr Ser Asn Ser Leu Glu Asp Asp Ser Asp Lys Asn		
225	230	235
Glu Asn Leu Gly Arg Lys Ser Glu Leu Ser Leu Asp Leu Asp Ser Asp		
245	250	255
Val Val Arg Glu Thr Val Asp Ser Leu Lys Leu Leu Ala Gln Gly His		
260	265	270
Gly Val Val Leu Ser Glu Asn Met Asn Asp Arg Asn Tyr Ala Asp Ser		
275	280	285
Met Ser Gln Gln Asp Ser Arg Asn Met Asn Tyr Val Met Leu Gly Lys		
290	295	300
Pro Met Asn Asn Gly Leu Met Glu Lys Met Val Glu Glu Ser Asp Glu		
305	310	315
Glu Val Cys Leu Ser Ser Leu Glu Cys Leu Arg Asn Gln Cys Phe Asp		
325	330	335
Leu Ala Arg Lys Leu Ser Glu Thr Asn Pro Gln Glu Arg Asn Pro Gln		
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Gln Asn Met Asn Ile Arg Gln His Val Arg Pro Glu Glu Asp Phe Pro		
355	360	365
Gly Arg Thr Pro Asp Arg Asn Tyr Ser Asp Met Leu Asn Leu Met Arg		
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Leu Glu Glu Gln Leu Ser Pro Arg Ser Arg Val Phe Ala Ser Cys Ala		
385	390	395
Lys Glu Asp Gly Cys His Glu Arg Asp Asp Asp Thr Thr Ser Val Asn		
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Ser Asp Arg Ser Glu Glu Val Phe Asp Met Thr Lys Gly Asn Leu Thr		
420	425	430
Leu Leu Glu Lys Ala Ile Ala Leu Glu Thr Glu Arg Ala Lys Ala Met		
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Arg Glu Lys Met Ala Met Glu Ala Gly Arg Arg Asp Asn Met Arg Ser		
450	455	460
Tyr Glu Asp Gln Ser Pro Arg Gln Leu Pro Gly Glu Asp Arg Lys Pro		
465	470	475
Lys Ser Ser Asp Ser His Val Lys Lys Pro Tyr Tyr Gly Lys Asp Pro		
485	490	495
Ser Arg Thr Glu Lys Lys Glu Ser Lys Cys Pro Thr Pro Gly Cys Asp		
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Gly Thr Gly His Val Thr Gly Leu Tyr Pro His His Arg Ser Leu Ser		
515	520	525
Gly Cys Pro His Lys Asp Arg Val Pro Pro Glu Ile Leu Ala Met His		
530	535	540
Glu Ser Val Leu Lys Cys Pro Thr Pro Gly Cys Thr Gly Arg Gly His		

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 Val Asn Ser Asn Arg Asn Ser His Arg Ser Leu Ser Gly Cys Pro Ile  
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 Cys Phe Val Lys Gln Leu Glu Ile Pro Gln Tyr Gly Tyr Arg Asn Asn  
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 Tyr Ser Lys Thr Ser Phe Glu Tyr Asn Ser Tyr Asp Asn His Thr Tyr  
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 Gly Lys Arg Ala Ile Ala Pro Lys Val Gln Thr Arg Asp Ile Ser Pro  
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 Leu Asn Leu Ser Thr Arg Cys Arg Glu Met Pro Gln Asn Leu Ser Thr  
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 Lys Pro Gln Asp Leu Cys Ala Thr Arg Asn Pro Asp Met Glu Val Asp  
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 Glu Asn Gly Thr Leu Asp Leu Ser Met Asn Lys Gln Arg Pro Arg Asp  
                                  770                                   775                                   780  
 Ser Cys Cys Pro Ile Leu Thr Pro Leu Glu Pro Met Ser Pro Gln Gln  
 785                                   790                                   795                                   800  
 Gln Ala Val Met Asn Asn Arg Cys Phe Gln Leu Gly Glu Gly Asp Cys  
                                  805                                   810                                   815  
 Trp Asp Leu Pro Val Asp Tyr Thr Lys Met Lys Pro Arg Arg Ile Asp  
                                  820                                   825                                   830  
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                                  835                                   840                                   845  
 Glu Ala Leu Glu Glu Arg Arg Tyr Pro Gly Glu Val Thr Ile Pro Ser  
                                  850                                   855                                   860  
 Pro Lys Pro Lys Tyr Pro Gln Cys Lys Glu Ser Lys Lys Asp Leu Ile  
 865                                   870                                   875                                   880  
 Thr Leu Ser Gly Cys Pro Leu Ala Asp Lys Ser Ile Arg Ser Met Leu  
                                  885                                   890                                   895  
 Ala Thr Ser Ser Gln Glu Leu Lys Cys Pro Thr Pro Gly Cys Asp Gly  
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 Ser Gly His Ile Thr Gly Asn Tyr Ala Ser His Arg Ser Leu Ser Gly  
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 Cys Pro Arg Ala Lys Lys Ser Gly Ile Arg Ile Ala Gln Ser Lys Glu  
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 Asp Lys Glu Asp Gln Glu Pro Ile Arg Cys Pro Val Pro Gly Cys Asp  
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 Gly Gln Gly His Ile Thr Gly Lys Tyr Ala Ser His Arg Ser Ala Ser  
                                  965                                   970                                   975  
 Gly Cys Pro Leu Ala Ala Lys Arg Gln Lys Asp Gly Tyr Leu Asn Gly

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Ser	Gln	Phe	Ser	Trp	Lys	Ser	Val	Lys	Thr	Glu	Gly	Met	Ser	Cys	Pro
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Ala	Lys	Leu	Ser	Gly	Glu	Gln	Met	Leu	Thr	Ile	Lys	Gln	Arg	Ala	Ser
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	1105				1110					1115					1120
Leu	Ala	Asn	Leu	Ser	Gln	Ser	Leu	Ile	His	Ser	Leu	Ala	Asn	Ile	Gln
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	1155						1160					1165			
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Gln	Val														
	1185														

&lt;210&gt; 2585

&lt;211&gt; 542

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2585

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 <213> Homo sapiens

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 35 40 45  
 Pro Gln Arg Ala Lys Val Cys Glu His Phe Leu Ser Pro Leu Asn Gly  
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 Leu Ser His Val Ile Leu Thr Arg Leu Leu Cys Phe Ile Thr Ser Val  
 65 70 75 80  
 Ser Gly Ala Ser His Pro Arg Glu Glu Trp Trp Gly Cys Arg Leu Thr  
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 Gln Ala Leu Leu Leu Asn Val Leu Ala Leu  
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 <213> Homo sapiens

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<210> 2588  
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 <212> PRT  
 <213> Homo sapiens

<400> 2588  
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Lys Glu Val Pro Arg Val Arg Lys Asp Ala Gly Tyr Pro Pro Leu Val
      35             40             45
Thr Pro Ser Ser Gln Ile Val Gly Thr Gln Ala Val Phe Asn Val Leu
      50             55             60
Met Gly Asn Gly Ser Tyr Lys Asn Leu Thr Ala Glu Phe Ala Asp Leu
      65             70             75             80
Met Leu Gly Tyr Tyr Gly Lys Pro Ile Gly Glu Leu Asn Pro Glu Ile
      85             90             95
Val Glu Met Ala Lys Lys Gln Thr Gly Lys Glu Pro Ile Asp Cys Arg
      100            105            110
Pro Ala Asp Leu Leu Glu Pro Glu Trp Asp Gln Leu Val Glu Gln Ala
      115            120            125
Lys Ser Leu Glu Gly Phe Asp Gly Ser Asp Glu Asp Val Leu Thr Asn
      130            135            140
Ala
145

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&lt;210&gt; 2589

&lt;211&gt; 366

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2589

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acgcgt
366

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&lt;210&gt; 2590

&lt;211&gt; 122

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2590

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      20             25             30
Gly Arg Gly Val Asp Phe Ala Ile Glu Val Val Gly Ile Val Glu Val
      35             40             45
Met Glu Gln Ala Tyr Trp Ala Ala Arg Arg Gly Gly Thr Ile Val Tyr

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Val Gly Ala Leu Gly Ile Asp Ala Lys Leu Val Leu Pro Ala Asn Asp
65              70              75              80
Leu His Gly Gly Ala Lys Thr Ile Ile Gly Cys Ala Asn Gly Leu Gly
      85              90              95
Ala Val Arg Thr Asp Tyr Ala Lys Met Ile Ser Leu Val Glu Thr Gly
      100             105             110
Arg Leu Asp Leu Gly Gly Met Ile Thr Arg
      115             120

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&lt;210&gt; 2591

&lt;211&gt; 341

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2591

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120
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240
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300
gaggggtcag ttggtgcatt cacagaacag cagggtggcc a
341

```

&lt;210&gt; 2592

&lt;211&gt; 109

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2592

```

Met Thr Ser Pro Tyr His Gln Gly His Thr Cys Val Ile Leu Gly Leu
 1              5              10              15
Ser Ser Pro Arg Val Val Gln His Gln Ala Arg Gly Gln Ser Ala Met
      20              25              30
Arg Thr Ala Pro Ser Cys Ser Arg Ala Gly Pro Gly Gln Gly Asn Ala
      35              40              45
Gly Asp Thr Val Gly Ser Arg Pro Gln Leu Leu Trp Gly Ser Ser Tyr
      50              55              60
Gly Arg Arg Ile Met Pro Ser Ser Val Glu Glu Gln Gly Val Thr Leu
65              70              75              80
His Ser Arg Leu Leu Gly Arg Arg Gly Gly Leu Arg Leu His Glu Gly
      85              90              95
Glu Gly Ser Val Gly Ala Phe Thr Glu Gln Gln Gly Gly
      100             105

```

&lt;210&gt; 2593

&lt;211&gt; 501

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

```
<210> 2594
<211> 167
<212> PRT
<213> Homo sapiens
```

```
<210> 2595
<211> 928
<212> DNA
<213> Homo sapiens
```

&lt;400&gt; 2595

agatcttcca gatgcaacaa tgatcaatta agacacgcgg cgacatggtg gcccctgcct  
 60  
 caccctccag ggatacctgt aatacctgct tcccacttca tgggctacaa tctcatgctg  
 120  
 gtcacaattt ctggggctca ctcatataac accaacaat gggatatttg tgaagaactt  
 180  
 cgctgcggg agcttgaaga agtcaaggcc agagctgctc agatggaaaa gaccatgcgg  
 240  
 tgggtggcgg actgcactgc caactggaga gaaaaatgga gtaaagtctg agctgaaagg  
 300  
 aacagtgccg gaaaggaagg aagacaactc agaataaaac tagagatggc gatgaaagaa  
 360  
 tcggatccac tgaacacagaa acagagtttg ccacttcaga aggaggcatt agaagctaatt  
 420  
 gttaccagg atctgaagct tcttggttc gtagaagaat cctgtgaaca tacagaccaa  
 480  
 tttcaattga gttcacaat gcattgagct atcagagagt atttggtaaa aagacaattt  
 540  
 tctacaaagg aggacacaaa taataaggaa caaggtgtgg ttattgattc tctaaaatta  
 600  
 agtgaggaga tgaagcccaa tctagatggt gttgatttat tcaacaatgg tggttctgga  
 660  
 aacggtgaaa cgaaaactgg gctgagactg aaagcaataa atctgccttt ggaaaatgaa  
 720  
 gtaactgaaa tttcagcttt gcaggtgcat ttggatgaat tccaaaaaat cttatggaag  
 780  
 gaaagagaaa tgcgcacagc tttggaaaaa gaaatagaga gactggagtc ggctttgtct  
 840  
 ctgtggaagt ggaagtatga agaactgaaa gaatcaaagc caaaaaatgt gaaagagttt  
 900  
 gacattcttc ttggtcaaca taatgatg  
 928

&lt;210&gt; 2596

&lt;211&gt; 309

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2596

Arg	Ser	Ser	Arg	Cys	Asn	Asn	Asp	Gln	Leu	Arg	His	Ala	Ala	Thr	Trp
1				5					10					15	
Trp	Pro	Leu	Pro	His	Pro	Pro	Gly	Ile	Pro	Val	Ile	Pro	Ala	Ser	His
			20					25					30		
Phe	Met	Gly	Tyr	Asn	Leu	Met	Leu	Val	Thr	Ile	Ser	Gly	Ala	His	Ser
		35					40					45			
Tyr	Asn	Thr	Asn	Lys	Trp	Asp	Ile	Cys	Glu	Glu	Leu	Arg	Leu	Arg	Glu
	50					55					60				
Leu	Glu	Glu	Val	Lys	Ala	Arg	Ala	Ala	Gln	Met	Glu	Lys	Thr	Met	Arg
65				70					75					80	
Trp	Trp	Ser	Asp	Cys	Thr	Ala	Asn	Trp	Arg	Glu	Lys	Trp	Ser	Lys	Val
			85						90					95	
Arg	Ala	Glu	Arg	Asn	Ser	Ala	Gly	Lys	Glu	Gly	Arg	Gln	Leu	Arg	Ile

100 105 110  
 Lys Leu Glu Met Ala Met Lys Glu Ser Asp Pro Leu Lys Gln Lys Gln  
 115 120 125  
 Ser Leu Pro Leu Gln Lys Glu Ala Leu Glu Ala Asn Val Thr Gln Asp  
 130 135 140  
 Leu Lys Leu Pro Gly Phe Val Glu Glu Ser Cys Glu His Thr Asp Gln  
 145 150 155 160  
 Phe Gln Leu Ser Ser Gln Met His Glu Ser Ile Arg Glu Tyr Leu Val  
 165 170 175  
 Lys Arg Gln Phe Ser Thr Lys Glu Asp Thr Asn Asn Lys Glu Gln Gly  
 180 185 190  
 Val Val Ile Asp Ser Leu Lys Leu Ser Glu Glu Met Lys Pro Asn Leu  
 195 200 205  
 Asp Gly Val Asp Leu Phe Asn Asn Gly Gly Ser Gly Asn Gly Glu Thr  
 210 215 220  
 Lys Thr Gly Leu Arg Leu Lys Ala Ile Asn Leu Pro Leu Glu Asn Glu  
 225 230 235 240  
 Val Thr Glu Ile Ser Ala Leu Gln Val His Leu Asp Glu Phe Gln Lys  
 245 250 255  
 Ile Leu Trp Lys Glu Arg Glu Met Arg Thr Ala Leu Glu Lys Glu Ile  
 260 265 270  
 Glu Arg Leu Glu Ser Ala Leu Ser Leu Trp Lys Trp Lys Tyr Glu Glu  
 275 280 285  
 Leu Lys Glu Ser Lys Pro Lys Asn Val Lys Glu Phe Asp Ile Leu Leu  
 290 295 300  
 Gly Gln His Asn Asp  
 305

&lt;210&gt; 2597

&lt;211&gt; 631

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2597

ccatgggtgg gaatgcaaga gacacactct agacttacta gaggagcaag agcaggactt  
 60  
 ggctgcacct gcagctgagg gttagcagga attaggagat aacagtagaa tagggctaga  
 120  
 ctgaaaaggc ctttgatgcc aggttaggaa atttacattt tatccacaaa atccaaatcc  
 180  
 tcctttaata atgagatgtc ttacaagtt ttggggcaag agtggatatgg ctgacctggt  
 240  
 gtcctgggaa ggaactgtgt ggggatggtg tgcaggactt acctaggggtg ggaaaggcac  
 300  
 aagcagcatg gggctgtggc agctaccaga ggtaaaggga catttcaggg aaagacttgg  
 360  
 caggacaaga ccttccttgg atggatggat gaataccaga aacagggacc caagagaaag  
 420  
 gccgagtttc atagggagag aagatgggtc atgtatgagg catgttgagc ttgtactgat  
 480  
 ggtgagacgt ccagtcgaca gtactacca ctggccagtg agaaatgtgg gaccagggtt  
 540  
 caggaggaaa ctggggccgg aaatgagcat ttggaaggcg ccaggggtgga agcgggtggt  
 600

tcactccacg agtgctatTT cacttacgcg t  
631

<210> 2598

<211> 108

<212> PRT

<213> Homo sapiens

<400> 2598

```
Met Gly Leu Trp Gln Leu Pro Glu Val Lys Gly His Phe Arg Glu Arg
 1           5           10          15
Leu Gly Arg Thr Arg Pro Ser Leu Asp Gly Trp Met Asn Thr Arg Asn
      20           25           30
Arg Asp Pro Arg Glu Arg Pro Ser Phe Ile Gly Arg Glu Asp Gly Ser
      35           40           45
Cys Met Arg His Val Glu Leu Val Leu Met Val Arg Arg Pro Val Asp
      50           55           60
Ser Thr Thr His Trp Pro Val Arg Asn Val Gly Pro Gly Phe Arg Arg
      65           70           75           80
Lys Leu Gly Pro Glu Met Ser Ile Trp Lys Ala Pro Gly Trp Lys Arg
      85           90           95
Val Val His Ser Thr Ser Ala Ile Ser Leu Thr Arg
      100          105
```

<210> 2599

<211> 356

<212> DNA

<213> Homo sapiens

<400> 2599

```
nagatcttat acagggacgt gatgttggag aactactgga accttgtttc tctgggactg
60
tgtcattttg atatgaatat tatctccatg ttggaggaag ggaaagagcc ctggactgtg
120
aagagctgtg tgaaaatagc aagaaaacca agaacgcggg aatgtgtcaa aggcgtggtc
180
acagatatcc ctctaaatg tacaatcaag gatttgctac caaaagagaa gagcagtaca
240
gaagcagtat tccacacagt ggtgttggaa agacacgaaa gccctgacat tgaagacttt
300
tccttcaagg aacccagaa aaatgtgcat gattttgagt gtcaatggag agatgn
356
```

<210> 2600

<211> 118

<212> PRT

<213> Homo sapiens

<400> 2600

```
Xaa Ile Leu Tyr Arg Asp Val Met Leu Glu Asn Tyr Trp Asn Leu Val
 1           5           10          15
Ser Leu Gly Leu Cys His Phe Asp Met Asn Ile Ile Ser Met Leu Glu
      20           25           30
Glu Gly Lys Glu Pro Trp Thr Val Lys Ser Cys Val Lys Ile Ala Arg
```

```

          35          40          45
Lys Pro Arg Thr Arg Glu Cys Val Lys Gly Val Val Thr Asp Ile Pro
   50          55          60
Pro Lys Cys Thr Ile Lys Asp Leu Leu Pro Lys Glu Lys Ser Ser Thr
65          70          75          80
Glu Ala Val Phe His Thr Val Val Leu Glu Arg His Glu Ser Pro Asp
          85          90          95
Ile Glu Asp Phe Ser Phe Lys Glu Pro Gln Lys Asn Val His Asp Phe
          100          105          110
Glu Cys Gln Trp Arg Asp
          115

```

&lt;210&gt; 2601

&lt;211&gt; 329

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2601

```

gcgccgatca tgatctacgg cgacgacgtc acccacctgc tcaccgaaga aggcacgccc
60
tacttgtaga aggcgcgttc cctggaagag cgccaagcga tgatcgccgg cgggtggtgg
120
gtcaccgcct tcggtttgcg ccacaacccc aaggacactg cgcgcatgcy ccgcgaaggc
180
ttgatgcgct tgcccgaaga cctcggtatc cgccgcaccg acgccaccg cgaactgttg
240
gccgccaaga gcgtggccga cctggtggag tggtcgggtg gcttgtgcaa cccgcccggc
300
aagttcagga gctggtaa at gcgcgcct
329

```

&lt;210&gt; 2602

&lt;211&gt; 105

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2602

```

Ala Pro Ile Met Ile Tyr Gly Asp Asp Val Thr His Leu Leu Thr Glu
  1          5          10          15
Glu Gly Ile Ala Tyr Leu Tyr Lys Ala Arg Ser Leu Glu Glu Arg Gln
          20          25          30
Ala Met Ile Ala Gly Gly Gly Gly Val Thr Ala Phe Gly Leu Arg His
          35          40          45
Asn Pro Lys Asp Thr Ala Arg Met Arg Arg Glu Gly Leu Ile Ala Leu
          50          55          60
Pro Glu Asp Leu Gly Ile Arg Arg Thr Asp Ala Thr Arg Glu Leu Leu
65          70          75          80
Ala Ala Lys Ser Val Ala Asp Leu Val Glu Trp Ser Gly Gly Leu Cys
          85          90          95
Asn Pro Pro Ala Lys Phe Arg Ser Trp
          100          105

```

&lt;210&gt; 2603

&lt;211&gt; 423

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2603

tcatgatcca ttgctctacc ctttacgggt gtgcacctac gcccagggtc gtgggtcagga  
 60  
 gcatcgggttc ggtgggtaccg aggtcgagga cttccttcac gccgttggtc gcggagggca  
 120  
 ggttggtgga agtgggtcagg tgggccacga tctgggcact gatcacctcg gtgaaatcga  
 180  
 agctctgggtt accctgagcg gtcgccgaca cgacacggtc cacaccggag accagaccga  
 240  
 tctcggagat gatcgcgtaa ctttcattgt cgtagaggat cttgcacgca tcgatgatgc  
 300  
 gcttgatctc cttggcagtg aagatgattt ccatcggggg gttggccgac agatactgac  
 360  
 cggagctggt ggtcacctgg gtggaatcca ggtcatccgg aaccgggttc aggttggtccg  
 420  
 cgg  
 423

&lt;210&gt; 2604

&lt;211&gt; 103

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2604

Met Glu Ile Ile Phe Thr Ala Lys Glu Ile Lys Arg Ile Ile Asp Ala  
 1 5 10 15  
 Cys Lys Ile Leu Tyr Asp Asn Glu Gly Tyr Ala Ile Ile Ser Glu Ile  
 20 25 30  
 Gly Leu Val Ser Gly Val Asp Arg Val Val Ser Ala Thr Ala Gln Gly  
 35 40 45  
 Asn Gln Ser Phe Asp Phe Thr Glu Val Ile Ser Ala Gln Ile Val Ala  
 50 55 60  
 His Leu Thr Thr Tyr His Asn Leu Pro Ser Ala Asn Asn Gly Val Lys  
 65 70 75 80  
 Glu Val Leu Asp Leu Gly Thr Thr Glu Pro Met Leu Leu Thr Thr Asp  
 85 90 95  
 Leu Gly Val Gly Ala Gln Pro  
 100

&lt;210&gt; 2605

&lt;211&gt; 354

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2605

ngggaggagg ggcattgcaa aagcgactgt atccagaggg ttgatttaa acatttttca  
 60  
 aaacatatgt ggcaaacagc ggggggaggg gatctcacca acgtttttct ccacttcttc  
 120  
 tttgcatgct gggacctgtt ccactttcaa aatgtgtcat tttggaagga aaggaggaa  
 180



caactacttg aaaggaatac acgtcagtat gagccctttc tcctcagcag aagggtgccc  
 240  
 caaagtacct cctctgaggc gagagaaagg agagaggagg agagacagct ttcataaat  
 300  
 ggggcaccca ggactctagg gagagaggca cgttctcaca aaggcccttt gagc  
 354

<210> 2606

<211> 101

<212> PRT

<213> Homo sapiens

<400> 2606

Met	Ser	Lys	Ala	Thr	Val	Ser	Arg	Gly	Phe	Asp	Leu	Asn	Ile	Phe	Gln
1				5				10				15			
Asn	Ile	Cys	Gly	Lys	Gln	Arg	Gly	Glu	Gly	Ile	Ser	Pro	Thr	Phe	Phe
		20					25				30				
Ser	Thr	Ser	Ser	Leu	His	Ala	Gly	Thr	Cys	Ser	Thr	Phe	Lys	Met	Cys
	35						40				45				
His	Phe	Gly	Arg	Lys	Gly	Arg	Asn	Asn	Tyr	Leu	Lys	Gly	Ile	His	Val
	50				55				60						
Ser	Met	Ser	Pro	Phe	Ser	Ser	Ala	Glu	Gly	Cys	Pro	Lys	Val	Pro	Pro
65				70				75			80				
Leu	Arg	Arg	Glu	Lys	Gly	Glu	Arg	Arg	Arg	Asp	Ser	Phe	His	Gln	Met
			85					90					95		
Gly	His	Pro	Gly	Leu											
			100												

<210> 2607

<211> 297

<212> DNA

<213> Homo sapiens

<400> 2607

tgatcaagaa caatgatacg atatcctaac caacagagga agcaacggaa gttgttggtg  
 60  
 tttttatgct gttttttttt tttgagaacg gatcttgccc ctgccccag gccggaatgg  
 120  
 atgacatgga cagaaccccg tcggaaaaaa gccggaatgt gcaaaccxaa attcccacca  
 180  
 cacgggggccc ctaacaattg gatccatccc cnaaaaaanc cntnncaaaa aaagntaaaa  
 240  
 actttttttt ttttaannn anacccccaa aaaaaccaa aaaaaaatt taaaaaa  
 297

<210> 2608

<211> 95

<212> PRT

<213> Homo sapiens

<400> 2608

Met	Ile	Arg	Tyr	Pro	Asn	Gln	Gln	Arg	Lys	Gln	Arg	Lys	Leu	Leu	Leu
1				5				10				15			
Phe	Leu	Cys	Cys	Phe	Phe	Phe	Leu	Arg	Thr	Asp	Leu	Ala	Pro	Ala	Pro

```

      20      25      30
Arg  Pro  Glu  Trp  Met  Thr  Trp  Thr  Glu  Pro  Arg  Arg  Lys  Lys  Ala  Gly
      35      40      45
Met  Cys  Lys  Pro  Lys  Phe  Pro  Pro  His  Gly  Gly  Pro  Asn  Asn  Trp  Ile
      50      55      60
His  Pro  Xaa  Lys  Xaa  Pro  Xaa  Gln  Lys  Lys  Xaa  Lys  Thr  Phe  Phe  Phe
      65      70      75      80
Leu  Xaa  Xaa  Xaa  Pro  Gln  Lys  Asn  Gln  Lys  Lys  Lys  Phe  Lys  Lys
      85      90      95

```

&lt;210&gt; 2609

&lt;211&gt; 305

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2609

```

ncgccatcgg catgatgtca ggcaaagatg atcctggcat ggcaaaggta tacggttttg
60
ttgacacgtc cctgacgac cctatccgct catctggaga cccatgcggt ccttggaccc
120
caattgccta cgaaaaaatt ttttttttcc cccccaaaaa acaccccccc ctcgcatctg
180
tgaaagtctt acctcggggg cgtcatctcg gctgtcatcg tcggcaaadc actcagctgg
240
ccgtaccctt cgtcatcgcc cgggccaccg acctcgacgg cncagcgtgc acggcaacga
300
ccacc
305

```

&lt;210&gt; 2610

&lt;211&gt; 98

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2610

```

Met  Met  Ser  Gly  Lys  Asp  Asp  Pro  Gly  Met  Ala  Lys  Val  Tyr  Gly  Phe
 1      5      10      15
Val  Asp  Thr  Ser  Leu  Thr  Ile  Pro  Ile  Arg  Ser  Ser  Gly  Asp  Pro  Cys
      20      25      30
Val  Pro  Trp  Thr  Pro  Ile  Ala  Tyr  Glu  Lys  Ile  Phe  Phe  Phe  Pro  Pro
      35      40      45
Lys  Lys  His  Pro  Pro  Leu  Ala  Ser  Val  Lys  Val  Leu  Pro  Arg  Gly  Arg
      50      55      60
His  Leu  Gly  Cys  His  Arg  Arg  Gln  Ile  Thr  Gln  Leu  Ala  Val  Pro  Phe
      65      70      75      80
Val  Ile  Ala  Arg  Ala  Thr  Asp  Leu  Asp  Gly  Xaa  Ala  Cys  Thr  Ala  Thr
      85      90      95
Thr  Thr

```

&lt;210&gt; 2611

&lt;211&gt; 342

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2611

gcccgcgcga tcgacggcga ctctctgacc agctgggtgt ccagctcgct gcaaaccgct  
60  
gtggggcaat ggcttcaggt ggacttcgac catccggtga ccaacgcgac catcacccctg  
120  
acgcccagcg ccaccgctgt cggagctcag gtgcgccgcg tcgaggtggc aacagccaac  
180  
ggcaccagca caattcgctt cgaccagccc ggcaagccgc tgacggcggc gctgccctac  
240  
ggcgagacct catgggtccg gttcaccgcg accggcaccg acgacggctc ccccggcgtg  
300  
cagttcggca tcaccgactt ctccgtgacg cagtacgacg cg  
342

&lt;210&gt; 2612

&lt;211&gt; 114

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2612

Ala	Ala	Ala	Ile	Asp	Gly	Asp	Ser	Ser	Thr	Ser	Trp	Val	Ser	Ser	Ser
1				5					10					15	
Leu	Gln	Thr	Ala	Val	Gly	Gln	Trp	Leu	Gln	Val	Asp	Phe	Asp	His	Pro
			20					25					30		
Val	Thr	Asn	Ala	Thr	Ile	Thr	Leu	Thr	Pro	Ser	Ala	Thr	Ala	Val	Gly
		35					40					45			
Ala	Gln	Val	Arg	Arg	Val	Glu	Val	Ala	Thr	Ala	Asn	Gly	Thr	Ser	Thr
	50					55					60				
Ile	Arg	Phe	Asp	Gln	Pro	Gly	Lys	Pro	Leu	Thr	Ala	Ala	Leu	Pro	Tyr
65					70				75					80	
Gly	Glu	Thr	Ser	Trp	Val	Arg	Phe	Thr	Ala	Thr	Gly	Thr	Asp	Asp	Gly
			85					90					95		
Ser	Pro	Gly	Val	Gln	Phe	Gly	Ile	Thr	Asp	Phe	Ser	Val	Thr	Gln	Tyr
			100					105					110		
Asp	Ala														

&lt;210&gt; 2613

&lt;211&gt; 414

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2613

acgcgtgtgg gttgtgcaca gggcatggct gctctggaca ggccctgggccc ctgggcatca  
60  
ttctctcct ccaaaagggtg agggctctgac ctaatggtag tttgtctgat gttttccaga  
120  
tatgcccta ctgggaaggg ccaagtgggc aggcagagtc tggggtggag cgaggtggg  
180  
ctgggaagca ctctgcttt tctgctgccc cagaacgaat gcaagttctg gcagcttctc  
240  
ctcctcctgg gaggaggaaa ggagggctcg cctccaggtc tcaggctgag ggagtgggct  
300

ggagaccctc tagatggcca gcagaggctg gcctctgtga gaaggcttcc ttgcgtgact  
 360  
 ctggggcccc tcccaggctc tctcgtggc aggcaggac ttgggccage atgg  
 414

<210> 2614  
 <211> 107  
 <212> PRT  
 <213> Homo sapiens

<400> 2614  
 Met Val Leu Cys Leu Met Phe Ser Arg Tyr Ala Pro Thr Gly Lys Gly  
 1 5 10 15  
 Gln Val Gly Arg Gln Ser Leu Gly Trp Ser Glu Val Gly Leu Gly Ser  
 20 25 30  
 Thr Pro Ala Phe Leu Leu Pro Gln Asn Glu Cys Lys Phe Trp Gln Leu  
 35 40 45  
 Leu Leu Leu Leu Gly Gly Gly Lys Glu Gly Ser Pro Pro Gly Leu Arg  
 50 55 60  
 Leu Arg Glu Trp Ala Gly Asp Pro Leu Asp Gly Gln Gln Arg Leu Ala  
 65 70 75 80  
 Ser Val Arg Arg Leu Pro Cys Val Thr Leu Gly Pro Leu Pro Gly Ser  
 85 90 95  
 Pro Arg Gly Arg Gln Gly Leu Gly Pro Ala Trp  
 100 105

<210> 2615  
 <211> 394  
 <212> DNA  
 <213> Homo sapiens

<400> 2615  
 nnngccgccc cctcggccg cagcgcgctt cttttgcgcn ncgacgtcag ccagaaggcg  
 60  
 gacgtcgacg ccattgctgaa ggaaacgctg gccagttcg gccacatcga taccctcgtc  
 120  
 aacaatgcgg gcgtcacgca tgcggccgat ttcctcgacg tgtgccaaga cgatttcgac  
 180  
 cgggtcatgc gcattaacct gaaatcgatg ttcctgtgcg gccaggccgc ggcgcgcgag  
 240  
 atggtcaagc gcaacagcgg ctgcatcatc aacatgtcca gcgtgaatgc ggaactggcc  
 300  
 attccgaacc aggtgccgta cgtggtgtcg aaaggcgcca tcaaccagct gaccaaggtc  
 360  
 atggccttga acctggcgcc gcacgggtgcg cgct  
 394

<210> 2616  
 <211> 131  
 <212> PRT  
 <213> Homo sapiens

<400> 2616  
 Xaa Ala Ala Ala Leu Gly Arg Ser Ala Leu Leu Leu Arg Xaa Asp Val

```

      1             5             10             15
Ser Gln Lys Ala Asp Val Asp Ala Met Leu Lys Glu Thr Leu Ala Gln
      20             25             30
Phe Gly His Ile Asp Ile Leu Val Asn Asn Ala Gly Val Thr His Ala
      35             40             45
Ala Asp Phe Leu Asp Val Cys Glu Asp Asp Phe Asp Arg Val Met Arg
      50             55             60
Ile Asn Leu Lys Ser Met Phe Leu Cys Gly Gln Ala Ala Arg Glu
      65             70             75             80
Met Val Lys Arg Asn Ser Gly Cys Ile Ile Asn Met Ser Ser Val Asn
      85             90             95
Ala Glu Leu Ala Ile Pro Asn Gln Val Pro Tyr Val Val Ser Lys Gly
      100            105            110
Ala Ile Asn Gln Leu Thr Lys Val Met Ala Leu Asn Leu Ala Pro His
      115            120            125
Gly Ala Arg
      130

```

&lt;210&gt; 2617

&lt;211&gt; 513

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2617

```

naccggttg catcatgctc acagcactgg gggttccctt ctttcttttc ctctcagaa
60
agacattgtg agatgggaaa tatcatggaa acacctatac ttccgggtc ccacttgaac
120
gtcaccttgg gaaatcacia gattctcaat gacgtctccg tatcattcca agcgggagtt
180
atgcacgcca tacttgccc caacgggttct gggaagacca ccctggtacg cacgttatgc
240
ggagccctct ccccgagtc ggggagcgtc aaattcgatg gaacggatct atccacgatg
300
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513

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&lt;210&gt; 2618

&lt;211&gt; 171

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2618

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Xaa Arg Leu Ala Ser Cys Ser Gln His Trp Gly Phe Pro Ser Phe Phe
      1             5             10             15
Ser Ser Ser Glu Arg His Cys Glu Met Gly Asn Ile Met Glu Thr Pro
      20             25             30
Ile Leu Ser Gly Ser His Leu Asn Val Thr Leu Gly Asn His Lys Ile

```

```

      35          40          45
Leu Asn Asp Val Ser Val Ser Phe Gln Ala Gly Val Met His Ala Ile
  50          55          60
Leu Gly Pro Asn Gly Ser Gly Lys Thr Thr Leu Val Arg Thr Leu Cys
  65          70          75          80
Gly Ala Leu Ser Pro Glu Ser Gly Ser Val Lys Phe Asp Gly Thr Asp
      85          90          95
Leu Ser Thr Met Ser Ala Ser Cys Ile Ala Arg Arg Ile Ala Ile Val
      100          105          110
Trp Gln Ser Ala Thr Ala Pro Ser Asp Leu Thr Val Arg His Leu Val
      115          120          125
Gly Tyr Gly Arg Tyr Ala His Thr Pro Trp Trp Gln Ile Arg Asp Thr
      130          135          140
Ser Ala Asp Ser His Val Glu Gln Ala Met Glu Leu Ala Asp Val Thr
      145          150          155          160
Cys Phe Ala Asp Arg Arg Val Thr Thr Leu Ser
      165          170

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<210> 2619  
 <211> 348  
 <212> DNA  
 <213> Homo sapiens

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120
cagcacgtca ttttccttga taacggtcgt accgacgtgc ttgccgacac ccttggtcgc
180
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240
gcgggcccgc acccttacgg ctcggtgtac cccggggcca ttggtgcggg gctcaatccg
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348

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<210> 2620  
 <211> 116  
 <212> PRT  
 <213> Homo sapiens

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<400> 2620
Xaa Asn Phe Asp Asp Leu Glu Val Phe Leu Lys Leu Leu Pro Arg Ser
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Ala Xaa Gly Glu Arg Met Asn Pro Tyr Asn Ser Val Trp Ser Gly Val
      20          25          30
Thr Asp Gly Asp Gly Pro Gln Glu Gln His Val Ile Phe Leu Asp Asn
      35          40          45
Gly Arg Thr Asp Val Leu Ala Asp Thr Leu Gly Arg Glu Val Leu Arg
      50          55          60
Cys Ile Arg Cys Ala Ser Cys Ile Asn Ile Cys Pro Val Tyr Glu Arg
      65          70          75          80
Ala Gly Gly His Pro Tyr Gly Ser Val Tyr Pro Gly Pro Ile Gly Ala

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	85		90		95
Val	Leu Asn Pro Gln Leu Arg Gly	Val Glu His Pro Val Asp Arg Gly			
	100	105	110		
Leu Pro Tyr Ala					
	115				

<210> 2621  
 <211> 1485  
 <212> DNA  
 <213> Homo sapiens

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 120  
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 240  
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 1200  
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 1260

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 1380  
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<210> 2622  
 <211> 83  
 <212> PRT  
 <213> Homo sapiens

<400> 2622  
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 20 25 30  
 Trp Leu Arg Ala His Ala Gln Thr His Ser Leu Pro Arg Leu Ser Lys  
 35 40 45  
 Ala Ser Pro Ser Pro Leu Leu Val Gly Gly Ala Arg Val Leu Leu Gly  
 50 55 60  
 Arg Leu Leu Glu Gly Arg Phe Ser Glu Leu Gln Gly Gln Gly Glu Gln  
 65 70 75 80  
 Leu Lys Gly

<210> 2623  
 <211> 3524  
 <212> DNA  
 <213> Homo sapiens

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 120  
 agtgggttcc tgagtggcgg cggaggtacc ggcagtagcg gtggtagcgg ctccggcggc  
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 420  
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 3240  
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<210> 2624

<211> 895

<212> PRT

<213> Homo sapiens

<400> 2624

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 Ser Gly Gly Ser Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly

1867

450 455 460  
 Leu Ile Phe Lys Lys Gly Ser Arg Lys Asn Thr Asp Lys Asn Tyr Leu  
 470 475 480  
 Asn Phe Val Ser Pro Leu Pro Asp Ile Val Gly Gln Lys Ser Leu Ser  
 485 490 495  
 Gly Lys Pro Ser Gly Ser Leu Gly Ile Val Ser Asn Asn Ser Val Glu  
 500 505 510  
 Thr Ile Gly Leu Leu Gln Ser Thr Ser Gly Lys Gln Gly Gln Ile Ser  
 515 520 525  
 Ser Asn Tyr Asp Asp Ala Met Gln Phe Ser Lys Lys Arg Arg Tyr Leu  
 530 535 540  
 Pro Thr Ala Ser Ser Asn Ser Ala Phe Ser Ile Asn Val Gly His Met  
 545 550 555 560  
 Val Ser Gln Gln Ser Val Ile Gln Ser Ala Gly Val Ser Val Leu Asp  
 565 570 575  
 Asn Glu Ala Pro Leu Ser Leu Ile Asp Ser Ser Ala Leu Asn Ala Glu  
 580 585 590  
 Ile Lys Ser Cys His Asp Lys Ser Gly Ile Pro Asp Glu Val Leu Gln  
 595 600 605  
 Ser Ile Leu Asp Gln Tyr Ser Asn Lys Ser Glu Ser Gln Lys Glu Asp  
 610 615 620  
 Pro Phe Asn Ile Ala Glu Pro Arg Val Asp Leu His Thr Ser Gly Glu  
 625 630 635 640  
 His Ser Glu Leu Val Gln Glu Glu Asn Leu Ser Pro Gly Thr Gln Thr  
 645 650 655  
 Pro Ser Asn Asp Lys Ala Ser Met Leu Gln Glu Tyr Ser Lys Tyr Leu  
 660 665 670  
 Gln Gln Ala Phe Glu Lys Ser Thr Asn Ala Ser Phe Thr Leu Gly His  
 675 680 685  
 Gly Phe Gln Phe Val Ser Leu Ser Ser Pro Leu His Asn His Thr Leu  
 690 695 700  
 Phe Pro Glu Lys Gln Ile Tyr Thr Thr Ser Pro Leu Glu Cys Gly Phe  
 705 710 715 720  
 Gly Gln Ser Val Thr Ser Val Leu Pro Ser Ser Leu Pro Lys Pro Pro  
 725 730 735  
 Phe Gly Met Leu Phe Gly Ser Gln Pro Gly Leu Tyr Leu Ser Ala Leu  
 740 745 750  
 Asp Ala Thr His Gln Gln Leu Thr Pro Ser Gln Glu Leu Asp Asp Leu  
 755 760 765  
 Ile Asp Ser Gln Lys Asn Leu Glu Thr Ser Ser Ala Phe Gln Ser Ser  
 770 775 780  
 Ser Gln Lys Leu Thr Ser Gln Lys Glu Gln Lys Asn Leu Glu Ser Ser  
 785 790 795 800  
 Thr Gly Phe Gln Ile Pro Ser Gln Glu Leu Ala Ser Gln Ile Asp Pro  
 805 810 815  
 Gln Lys Asp Ile Glu Pro Arg Thr Thr Tyr Gln Ile Glu Asn Phe Ala  
 820 825 830  
 Gln Ala Phe Gly Ser Gln Phe Lys Ser Gly Ser Arg Val Pro Met Thr  
 835 840 845  
 Phe Ile Thr Asn Ser Asn Gly Glu Val Asp His Arg Val Arg Thr Ser  
 850 855 860  
 Val Ser Asp Phe Ser Gly Tyr Thr Asn Met Met Ser Asp Val Ser Glu  
 865 870 875 880  
 Pro Cys Ser Thr Arg Val Lys Thr Pro Thr Ser Gln Ser Tyr Arg

885

890

895

&lt;210&gt; 2625

&lt;211&gt; 1398

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2625

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caccacgaga aacgcctctt ttgcagcagt ttaaggtacg ttaggggtca ccgtgttgca  
120  
ttgtgggaag tatagggcgg caagcggagg aggcgtggcg agcggatcat ccgcttccgg  
180  
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360  
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420  
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480  
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780  
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840  
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<210> 2626

<211> 137

<212> PRT

<213> Homo sapiens

<400> 2626

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Leu Thr Ile Arg Leu Ala Leu Gly Gly Cys Thr Asn Arg Pro Phe Tyr
      20             25             30
Arg Ile Val Ala Ala His Asn Lys Cys Pro Arg Asp Gly Arg Phe Val
      35             40             45
Glu Gln Leu Gly Ser Tyr Asp Pro Leu Pro Asn Ser His Gly Glu Lys
      50             55             60
Leu Val Ala Leu Asn Leu Asp Arg Ile Arg His Trp Ile Gly Cys Gly
      65             70             75             80
Ala His Leu Ser Lys Pro Met Glu Lys Leu Leu Gly Leu Ala Gly Phe
      85             90             95
Phe Pro Leu His Pro Met Met Ile Thr Asn Ala Glu Arg Leu Arg Arg
      100            105            110
Lys Arg Ala Arg Glu Val Leu Leu Ala Ser Gln Lys Thr Asp Ala Glu
      115            120            125
Ala Thr Asp Thr Glu Ala Thr Glu Thr
      130            135
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<210> 2627

<211> 320

<212> DNA

<213> Homo sapiens

<400> 2627

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120
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180
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320
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<210> 2628

<211> 90

<212> PRT

<213> Homo sapiens

<400> 2628

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			20					25					30					
Ala	Pro	Phe	Ser	Ser	Thr	Ser	Phe	Ser	Val	Pro	Lys	Lys	Ala	Arg	Ala			
		35					40					45						
Asp	Cys	Thr	Cys	Ile	Ser	Thr	Ala	Glu	Leu	Phe	Ile	Cys	Asp	Ser	Ala			
	50					55					60							
Phe	Phe	Arg	Ser	Ser	Gly	Ser	Arg	Glu	Arg	His	Ser	Phe	Lys	Val	Phe			
65					70					75					80			
Phe	Leu	Cys	Ile	Pro	Pro	Pro	Leu	His	Ala									
			85					90										

&lt;210&gt; 2629

&lt;211&gt; 650

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2629

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540ttataagagc ctgtgccaga ctctgcattc cagtttggag tttcagactt cgagagcatt  
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650

&lt;210&gt; 2630

&lt;211&gt; 58

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2630

Met Asp Asn Leu Glu Lys Gln Leu Ile Cys Pro Ile Cys Leu Glu Met

1 5 10 15

Phe Ser Lys Pro Val Val Ile Leu Pro Cys Gln His Asn Leu Cys Arg

20 25 30

Lys Cys Ala Asn Asp Val Phe Gln Val Gly Ala Arg Asp Gly Gln Gly

35 40 45

Gln Val Lys Gln Cys Arg Pro Val Gly Asp

50

55

&lt;210&gt; 2631

&lt;211&gt; 5124

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2631

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<213> Homo sapiens

<400> 2632

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&lt;211&gt; 59

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2634

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&lt;210&gt; 2635

&lt;211&gt; 1062

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&lt;213&gt; Homo sapiens

&lt;400&gt; 2635

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Glu	Cys	Glu	Gln	Gly	Phe	Asp	Arg	Asn	Ala	Ser	Leu	Ser	Val	Tyr	Pro
			245						250					255	
Lys	Thr	His	Thr	Gly	Tyr	Lys	Phe	Tyr	Val	Cys	Asn	Glu	Tyr	Gly	Thr
			260					265					270		
Thr	Phe	Ser	Gln	Ser	Thr	Tyr	Leu	Trp	His	Gln	Lys	Thr	His	Thr	Gly
		275					280					285			
Glu	Lys	Pro	Cys	Lys	Ser	Gln	Asp	Ser	Asp	His	Pro	Pro	Ser	His	Asp
	290					295					300				
Thr	Gln	Pro	Gly	Glu	His	Gln	Lys	Thr	His	Thr	Asp	Ser	Lys	Ser	Tyr
305					310					315					320
Asn	Cys	Asn	Glu	Cys	Gly	Lys	Ala	Phe	Thr	Arg	Ile	Phe	His	Leu	Thr
			325						330					335	
Arg	His	Gln	Lys	Ile	His	Thr	Arg	Lys	Arg	Tyr	Glu	Cys	Ser	Lys	Cys
		340						345				350			
Gln	Ala	Thr	Phe	Asn	Leu	Arg	Lys	His	Leu	Ile	Gln	His	Gln	Lys	Thr

```

      355      360      365
His Ala Ala Lys Thr Thr Ser Glu Cys Gln Glu Cys Gly Lys Ile Phe
  370      375      380
Arg His Ser Ser Leu Leu Ile Glu His Gln Ala Leu His Ala Gly Glu
  385      390      395      400
Glu Pro Tyr Lys Cys Asn Glu Arg Gly Lys Ser Phe Arg His Asn Ser
      405      410      415
Thr Leu Lys Ile His Gln Arg Val His Ser Gly Glu Lys Pro Tyr Lys
      420      425      430
Cys Ser Glu Cys Gly Lys Ala Phe His Arg His Thr His Leu Asn Glu
      435      440      445
His Arg Arg Ile His Thr Gly Tyr Arg Pro His Lys Cys Gln Glu Cys
      450      455      460
Val Arg Ser Phe Ser Arg Pro Ser His Leu Met Arg His Gln Ala Ile
  465      470      475      480
His Thr Ala Glu Lys Pro Tyr Ser Cys Ala Glu Cys Lys Glu Thr Phe
      485      490      495
Ser Asp Asn Asn Arg Leu Val Gln His Gln Lys Met His Thr Val Lys
      500      505      510
Thr Pro Tyr Glu Cys Gln Glu Cys Gly Glu Arg Phe Ile Cys Gly Ser
      515      520      525
Thr Leu Lys Cys His Glu Ser Val His Ala Arg Glu Lys Gln Gly Phe
      530      535      540
Phe Val Ser Gly Lys Ile Leu Asp Gln Asn Pro Glu Gln Lys Glu Lys
  545      550      555      560
Cys Phe Lys Cys Asn Lys Cys Glu Lys Thr Phe Ser Cys Ser Lys Tyr
      565      570      575
Leu Thr Gln Tyr Glu Arg Ile His Thr Arg Gly Val Lys Pro Phe Glu
      580      585      590
Cys Asp Gln Cys Gly Lys Ala Phe Gly Gln Ser Thr Arg Leu Ile His
      595      600      605
His Gln Arg Ile His Ser Arg Val Arg Leu Tyr Lys Trp Gly Glu Gln
      610      615      620
Gly Lys Ala Ile Ser Ser Ala Ser Leu Ile Lys Leu Gln Ser Phe His
  625      630      635      640
Thr Lys Glu His Pro Phe Lys Cys Asn Glu Cys Gly Lys Thr Phe Ser
      645      650      655
His Ser Ala His Leu Ser Lys His Gln Leu Ile His Ala Gly Glu Asn
      660      665      670
Pro Phe Lys Cys Ser Lys Cys Asp Arg Val Phe Thr Gln Arg Asn Tyr
      675      680      685
Leu Val Gln His Glu Arg Thr His Ala Arg Lys Lys Pro Leu Val Cys
      690      695      700
Asn Glu Cys Gly Lys Thr Phe Arg Gln Ser Ser Cys Leu Ser Lys His
  705      710      715      720
Gln Arg Ile His Ser Gly Glu Lys Pro Tyr Val Cys Asp Tyr Cys Gly
      725      730      735
Lys Ala Phe Gly Leu Ser Ala Glu Leu Val Arg His Gln Arg Ile His
      740      745      750
Thr Gly Glu Lys Pro Tyr Val Cys Gln Glu Cys Gly Lys Ala Phe Thr
      755      760      765
Gln Ser Ser Cys Leu Ser Ile His Arg Arg Val His Thr Gly Glu Lys
      770      775      780
Pro Tyr Arg Cys Gly Glu Cys Gly Lys Ala Phe Ala Gln Lys Ala Asn

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785		790		795		800									
Leu	Thr	Gln	His	Gln	Arg	Ile	His	Thr	Gly	Glu	Lys	Pro	Tyr	Ser	Cys
				805					810					815	
Asn	Val	Cys	Gly	Lys	Ala	Phe	Val	Leu	Ser	Ala	His	Leu	Asn	Gln	His
			820					825					830		
Leu	Arg	Val	His	Thr	Gln	Glu	Thr	Leu	Tyr	Gln	Cys	Gln	Arg	Cys	Gln
		835					840					845			
Lys	Ala	Phe	Arg	Cys	His	Ser	Ser	Leu	Ser	Arg	His	Gln	Arg	Val	His
	850					855					860				
Asn	Lys	Gln	Gln	Tyr	Cys	Leu									
865					870										

&lt;210&gt; 2645

&lt;211&gt; 1018

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2645

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ctgaccacag agcgctgctc ccgagaaccc tgcaccctc aatggagtaa attaccataa
60
agcctcttcc ttaccatgc tttgggggtg taacagctga ggctattcgt cggtgacctg
120
tgggactcga gctattctg cagctcagca gacctcctgg ccgtggcaga cttctgcgtt
180
atgacccggc tgctgggcta cgtggacccc ctggatccca gctttgtggc tgccgtcatc
240
accatcacct tcaatccgct ctactggaat gtggttgac gatgggaaca caagaccgcg
300
aagctgagca gggccttcgg atccccctac ctggcctgct actctctaag catcaccatc
360
ctgctcctga acttctgcg ctgcactgc ttcacgcagg ccatgctgag ccagcccagg
420
atggagagcc tggacacccc cgcggcctac agcctgggccc tcgcgctcct gggactgggc
480
gtcgtgctcg tgctctccag cttctttgca ctgggggttcg ctggaacttt cctaggtgat
540
tacttcggga tcctcaagga ggcgagagt accgtgttcc ccttcaacat cctggacaac
600
cccatgtact ggggaagcac agccaactac ctgggctggg ccatcatgca cgccagcccc
660
acgggcctgc tcctgacggt gctggtggcc ctcacctaca taatggctct cctatacgaa
720
gagcccttca ccgctgagat ctaccggcag aaagcctccg ggtcccacaa gaggagctga
780
ttgagctgca acagctttgc tgaaggcctg gccagcctcc tggcctgccc caagtggcag
840
gccctgcga gggcgagaat ggtgcctgct gctcagggt cgccccggc gtgggctgcc
900
ccagtgcctt ggaacctgct gccttgggga ccctggacgt gccgacatat ggccattgag
960
ctccaaccca cacattccca ttcaccaata aaggcaccct gaccccaaaa aaaaaaaa
1018

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&lt;210&gt; 2646

<211> 199  
 <212> PRT  
 <213> Homo sapiens

<400> 2646

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 1           5           10           15
Ala Ala Val Ile Thr Ile Thr Phe Asn Pro Leu Tyr Trp Asn Val Val
          20           25           30
Ala Arg Trp Glu His Lys Thr Arg Lys Leu Ser Arg Ala Phe Gly Ser
          35           40           45
Pro Tyr Leu Ala Cys Tyr Ser Leu Ser Ile Thr Ile Leu Leu Leu Asn
 50           55           60
Phe Leu Arg Ser His Cys Phe Thr Gln Ala Met Leu Ser Gln Pro Arg
65           70           75           80
Met Glu Ser Leu Asp Thr Pro Ala Ala Tyr Ser Leu Gly Leu Ala Leu
          85           90           95
Leu Gly Leu Gly Val Val Leu Val Leu Ser Ser Phe Phe Ala Leu Gly
          100          105          110
Phe Ala Gly Thr Phe Leu Gly Asp Tyr Phe Gly Ile Leu Lys Glu Ala
          115          120          125
Arg Val Thr Val Phe Pro Phe Asn Ile Leu Asp Asn Pro Met Tyr Trp
130          135          140
Gly Ser Thr Ala Asn Tyr Leu Gly Trp Ala Ile Met His Ala Ser Pro
145          150          155          160
Thr Gly Leu Leu Leu Thr Val Leu Val Ala Leu Thr Tyr Ile Met Ala
          165          170          175
Leu Leu Tyr Glu Glu Pro Phe Thr Ala Glu Ile Tyr Arg Gln Lys Ala
          180          185          190
Ser Gly Ser His Lys Arg Ser
          195

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<210> 2647  
 <211> 1368  
 <212> DNA  
 <213> Homo sapiens

<400> 2647

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acgcgttctg atggtgactt cttgcatagt accaacggca ataaagaaaa gttatttcca
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catgtgacac caaaaggaat taatgggtata gacttttaaag gggaagcgat aactttttaa
120
gcaactactg ctggaatcct tgcaacactt tctcattgta ttgaactaat ggtaaactgt
180
gaggacagct ggcagaagag actggataag gaaactgaga agaaaagaag aacagaggaa
240
gcatataaaa atgcaatgac agaacttaag aaaaaatccc actttggagg accagattat
300
gaagaaggcc ctaacagtct gattaatgaa gaagagttct ttgatgctgt tgaagctgct
360
cttgacagac aagataaaaat agaagaacag tcacagagtg aaaagggtgag attacattgg
420
cctacatcct tgccctctgg agatgccttt tcttctgtgg ggacacatag atttgtccaa
480

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aagggtgaag agatggtgca gaaccacatg acttactcat tacaggatgt aggcggagat  
540  
gcccaattggc agttggttgt agaagaagga gaaatgaagg tatacagaag agaagtagaa  
600  
gaaaatggga ttgttctgga tcctttaaaa gctacccatg cagttaaagg cgtcacagga  
660  
catgaagtct gcaattatct ctggaatggt gacgttcgca atgactggga aacaactata  
720  
gaaaactttc atgtggtgga aacattagct gataatgcaa tcatcattta tcaaacacac  
780  
aagagggtgt ggcctgcttc tcagcgagac gtattatata tttctgtcat tcgaaagata  
840  
ccagccttga ctgaaaatga ccctgaaact tggatagttt gtaatttttc tgtggatcat  
900  
gacagtgtct ctctaaacaa ccgatgtgtc cgtgccaaaa taaatgttgc tatgatttgt  
960  
caaaccttgg taagcccacc agagggaac caggaaatta gcagggacaa cattctatgc  
1020  
aagattacat atgtagctaa tgtgaaccct ggaggatggg caccagcctc agtgtaagg  
1080  
gcagtggcaa agcgagagta tcctaaatct ctaaaacggt ttacttctta cgtccaagaa  
1140  
aaaactgcag gaaagcctat tttgttctag tattaacagt gactgaagca aggctgtgtg  
1200  
acattccatg ttggagaaaa aaagaaaaaa aaagctgaat gctctaagct ggaacgtagg  
1260  
atctatagcc ttgtctgtgg cccaagacct tggccttggt tacaaaaatg acaaaatatt  
1320  
gcaatagcaa agctgaacat ctaacactag ctatctcttg ctagatct  
1368

&lt;210&gt; 2648

&lt;211&gt; 389

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2648

Thr Arg Ser Asp Gly Asp Phe Leu His Ser Thr Asn Gly Asn Lys Glu  
5 10 15  
Lys Leu Phe Pro His Val Thr Pro Lys Gly Ile Asn Gly Ile Asp Phe  
20 25 30  
Lys Gly Glu Ala Ile Thr Phe Lys Ala Thr Thr Ala Gly Ile Leu Ala  
35 40 45  
Thr Leu Ser His Cys Ile Glu Leu Met Val Lys Arg Glu Asp Ser Trp  
50 55 60  
Gln Lys Arg Leu Asp Lys Glu Thr Glu Lys Lys Arg Arg Thr Glu Glu  
65 70 75 80  
Ala Tyr Lys Asn Ala Met Thr Glu Leu Lys Lys Lys Ser His Phe Gly  
85 90 95  
Gly Pro Asp Tyr Glu Glu Gly Pro Asn Ser Leu Ile Asn Glu Glu Glu  
100 105 110  
Phe Phe Asp Ala Val Glu Ala Ala Leu Asp Arg Gln Asp Lys Ile Glu  
115 120 125  
Glu Gln Ser Gln Ser Glu Lys Val Arg Leu His Trp Pro Thr Ser Leu

130 135 140  
 Pro Ser Gly Asp Ala Phe Ser Ser Val Gly Thr His Arg Phe Val Gln  
 145 150 155 160  
 Lys Val Glu Glu Met Val Gln Asn His Met Thr Tyr Ser Leu Gln Asp  
 165 170 175  
 Val Gly Gly Asp Ala Asn Trp Gln Leu Val Val Glu Glu Gly Glu Met  
 180 185 190  
 Lys Val Tyr Arg Arg Glu Val Glu Glu Asn Gly Ile Val Leu Asp Pro  
 195 200 205  
 Leu Lys Ala Thr His Ala Val Lys Gly Val Thr Gly His Glu Val Cys  
 210 215 220  
 Asn Tyr Phe Trp Asn Val Asp Val Arg Asn Asp Trp Glu Thr Thr Ile  
 225 230 235 240  
 Glu Asn Phe His Val Val Glu Thr Leu Ala Asp Asn Ala Ile Ile Ile  
 245 250 255  
 Tyr Gln Thr His Lys Arg Val Trp Pro Ala Ser Gln Arg Asp Val Leu  
 260 265 270  
 Tyr Leu Ser Val Ile Arg Lys Ile Pro Ala Leu Thr Glu Asn Asp Pro  
 275 280 285  
 Glu Thr Trp Ile Val Cys Asn Phe Ser Val Asp His Asp Ser Ala Pro  
 290 295 300  
 Leu Asn Asn Arg Cys Val Arg Ala Lys Ile Asn Val Ala Met Ile Cys  
 305 310 315 320  
 Gln Thr Leu Val Ser Pro Pro Glu Gly Asn Gln Glu Ile Ser Arg Asp  
 325 330 335  
 Asn Ile Leu Cys Lys Ile Thr Tyr Val Ala Asn Val Asn Pro Gly Gly  
 340 345 350  
 Trp Ala Pro Ala Ser Val Leu Arg Ala Val Ala Lys Arg Glu Tyr Pro  
 355 360 365  
 Lys Phe Leu Lys Arg Phe Thr Ser Tyr Val Gln Glu Lys Thr Ala Gly  
 370 375 380  
 Lys Pro Ile Leu Phe  
 385

&lt;210&gt; 2649

&lt;211&gt; 1299

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2649

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 60  
 gctttcctgc tcttgagttc caggaccgca cgctccgagg aggaccggga cggcctatgg  
 120  
 gatgcctggg gcccatggag tgaatgctca cgcacctgcg ggggtggggc ctcctactct  
 180  
 ctgaggcgct gcctgagcag caagagctgt gaaggaagaa atatccgata cagaacatgc  
 240  
 agtaatgtgg actgcccacc agaagcaggt gatttccgag ctcagcaatg ctcagctcat  
 300  
 aatgatgtca agcaccatgg ccagttttat gaatggcttc ctgtgtctaa tgaccctgac  
 360  
 aacccatggt cactcaagt ccaagccaaa ggaacaaccc tgggtgttga actagcacct  
 420

aaggctcttag atggtacgcg ttgctataca gaatctttgg atatgtgcat cagtgggtta  
 480  
 tgccaaattg ttggctgcga tcaccagctg ggaagcaccg tcaaggaaga taactgtggg  
 540  
 gtctgcaacg gagatgggtc cacctgccgg ctgggtccgag ggcagtataa atcccagctc  
 600  
 tccgcaacca aatcgatga tactgtgggt gcaattccct atggaagtag acatattcgc  
 660  
 cttgtcttaa aaggctctga tcacttatat ctggaaacca aaaccctcca ggggactaaa  
 720  
 ggtgaaaaca gtctcagctc cacaggaact ttccttggg acaattctag tgtggacttc  
 780  
 cagaaatttc cagacaaaga gatactgaga atggctggac cactcacagc agatttcatt  
 840  
 gtcaagattc gtaactcggg ctccgctgac agtacagtcc agttcatctt ctatcaaccc  
 900  
 atcatccacc gatggaggga gacggatttc tttccttgct cagcaacctg tggaggaggt  
 960  
 tatcagctga catcggtga gtgctacgat ctgaggagca accgtgtggg tgctgaccaa  
 1020  
 tactgtcact attaccaga gaacatcaaa cccaaaccca agcttcagga gtgcaacttg  
 1080  
 gatccttgct cagccagtga cggatacaag cagatcatgc cttatgacct ctaccatccc  
 1140  
 ctctctcggt gggaggccac cccatggacc gcgtgctcct cctcgtgtgg ggggggcatc  
 1200  
 cagagcccg gcatcttct gtgtggagga ggacatccag gggcatgtca cttcagtgga  
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 agagtggaaa tgcattgaca cccctaagat gcccatcgc  
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<210> 2650

<211> 428

<212> PRT

<213> Homo sapiens

<400> 2650

Xaa	Asp	Pro	Ser	Met	Glu	Cys	Cys	Arg	Arg	Ala	Thr	Pro	Gly	Thr	Leu
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Leu	Leu	Phe	Leu	Ala	Phe	Leu	Leu	Leu	Ser	Ser	Arg	Thr	Ala	Arg	Ser
			20					25					30		
Glu	Glu	Asp	Arg	Asp	Gly	Leu	Trp	Asp	Ala	Trp	Gly	Pro	Trp	Ser	Glu
		35				40					45				
Cys	Ser	Arg	Thr	Cys	Gly	Gly	Gly	Ala	Ser	Tyr	Ser	Leu	Arg	Arg	Cys
	50				55					60					
Leu	Ser	Ser	Lys	Ser	Cys	Glu	Gly	Arg	Asn	Ile	Arg	Tyr	Arg	Thr	Cys
65				70				75					80		
Ser	Asn	Val	Asp	Cys	Pro	Pro	Glu	Ala	Gly	Asp	Phe	Arg	Ala	Gln	Gln
			85				90						95		
Cys	Ser	Ala	His	Asn	Asp	Val	Lys	His	His	Gly	Gln	Phe	Tyr	Glu	Trp
		100				105					110				
Leu	Pro	Val	Ser	Asn	Asp	Pro	Asp	Asn	Pro	Cys	Ser	Leu	Lys	Cys	Gln
		115				120					125				
Ala	Lys	Gly	Thr	Thr	Leu	Val	Val	Glu	Leu	Ala	Pro	Lys	Val	Leu	Asp

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      130              135              140
Gly Thr Arg Cys Tyr Thr Glu Ser Leu Asp Met Cys Ile Ser Gly Leu
145              150              155              160
Cys Gln Ile Val Gly Cys Asp His Gln Leu Gly Ser Thr Val Lys Glu
      165              170              175
Asp Asn Cys Gly Val Cys Asn Gly Asp Gly Ser Thr Cys Arg Leu Val
      180              185              190
Arg Gly Gln Tyr Lys Ser Gln Leu Ser Ala Thr Lys Ser Asp Asp Thr
      195              200              205
Val Val Ala Ile Pro Tyr Gly Ser Arg His Ile Arg Leu Val Leu Lys
      210              215              220
Gly Pro Asp His Leu Tyr Leu Glu Thr Lys Thr Leu Gln Gly Thr Lys
225              230              235              240
Gly Glu Asn Ser Leu Ser Ser Thr Gly Thr Phe Leu Val Asp Asn Ser
      245              250              255
Ser Val Asp Phe Gln Lys Phe Pro Asp Lys Glu Ile Leu Arg Met Ala
      260              265              270
Gly Pro Leu Thr Ala Asp Phe Ile Val Lys Ile Arg Asn Ser Gly Ser
      275              280              285
Ala Asp Ser Thr Val Gln Phe Ile Phe Tyr Gln Pro Ile Ile His Arg
      290              295              300
Trp Arg Glu Thr Asp Phe Phe Pro Cys Ser Ala Thr Cys Gly Gly Gly
305              310              315              320
Tyr Gln Leu Thr Ser Ala Glu Cys Tyr Asp Leu Arg Ser Asn Arg Val
      325              330              335
Val Ala Asp Gln Tyr Cys His Tyr Tyr Pro Glu Asn Ile Lys Pro Lys
      340              345              350
Pro Lys Leu Gln Glu Cys Asn Leu Asp Pro Cys Pro Ala Ser Asp Gly
      355              360              365
Tyr Lys Gln Ile Met Pro Tyr Asp Leu Tyr His Pro Leu Pro Arg Trp
      370              375              380
Glu Ala Thr Pro Trp Thr Ala Cys Ser Ser Ser Cys Gly Gly Gly Ile
385              390              395              400
Gln Ser Pro Gly Ser Phe Leu Cys Gly Gly His Pro Gly Ala Cys
      405              410              415
His Phe Ser Gly Arg Val Glu Met His Val His Pro
      420              425

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&lt;210&gt; 2651

&lt;211&gt; 628

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2651

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60

acctttgtga agggatatcaa gcctgggctc aagaatctga accttatctt cattgtgctg  
120

gagacaggcc gaggtagcaa gacaaaggac gggcatgagg ttcggacctg caaagtggcg  
180

gacaaaacag gcagcatcaa tatctctgtc tgggacgatg ttggcaatct gatccagcct  
240

ggggacatta tccggctcac caaagggtac gcttcagttt tcaaagggtg tctgacacta  
300



tataactggcc gtgggggtga tctgcagaag attggagaat tctgcatgga ttattctgag  
 360  
 gttcctaact tcagttagcc aaacccagag tacagcaccc agcaggcacc caacaaggcg  
 420  
 gtgcagaacg acagcaaccc ttcagcttcc cagcctacca ctggaccctc tgctgcctct  
 480  
 ccagcctctg agaaccagaa tgggaatgga atgagtgtccc caccagggtt cggggtgggtg  
 540  
 gccacatcc ccctcatact ccctcccacc caccagcac ccgaatcact cgaagccagc  
 600  
 ccaaccacac acctgcaggc ccgcctgg  
 628

<210> 2652

<211> 209

<212> PRT

<213> Homo sapiens

<400> 2652

Tyr	Thr	Val	Leu	Pro	Ala	Gly	Leu	Val	Gly	Cys	Arg	Gly	Ser	Gly	Ser
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Met	Thr	Thr	Glu	Thr	Phe	Val	Lys	Gly	Ile	Lys	Pro	Gly	Leu	Lys	Asn
			20					25					30		
Leu	Asn	Leu	Ile	Phe	Ile	Val	Leu	Glu	Thr	Gly	Arg	Val	Thr	Lys	Thr
		35					40					45			
Lys	Asp	Gly	His	Glu	Val	Arg	Thr	Cys	Lys	Val	Ala	Asp	Lys	Thr	Gly
	50					55				60					
Ser	Ile	Asn	Ile	Ser	Val	Trp	Asp	Asp	Val	Gly	Asn	Leu	Ile	Gln	Pro
65					70					75				80	
Gly	Asp	Ile	Ile	Arg	Leu	Thr	Lys	Gly	Tyr	Ala	Ser	Val	Phe	Lys	Gly
			85						90					95	
Cys	Leu	Thr	Leu	Tyr	Thr	Gly	Arg	Gly	Gly	Asp	Leu	Gln	Lys	Ile	Gly
			100					105					110		
Glu	Phe	Cys	Met	Asp	Tyr	Ser	Glu	Val	Pro	Asn	Phe	Ser	Glu	Pro	Asn
		115					120					125			
Pro	Glu	Tyr	Ser	Thr	Gln	Gln	Ala	Pro	Asn	Lys	Ala	Val	Gln	Asn	Asp
	130					135					140				
Ser	Asn	Pro	Ser	Ala	Ser	Gln	Pro	Thr	Thr	Gly	Pro	Ser	Ala	Ala	Ser
145					150					155				160	
Pro	Ala	Ser	Glu	Asn	Gln	Asn	Gly	Asn	Gly	Met	Ser	Ala	Pro	Pro	Gly
			165						170					175	
Phe	Arg	Val	Val	Ala	His	Ile	Pro	Leu	Ile	Leu	Pro	Pro	Thr	His	Pro
			180					185					190		
Ala	Pro	Glu	Ser	Leu	Glu	Ala	Ser	Pro	Thr	Thr	His	Leu	Gln	Ala	Arg
		195					200						205		
Leu															

<210> 2653

<211> 2103

<212> DNA

<213> Homo sapiens

<400> 2653

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120  
caagctactg accgtactcg ggcgtattag gagccgcgtt ccagcctcac accccacggg  
180  
gctgttttcg acttcagaaa ggatctagcc tcagcacaga agcgccctcag gcgcggcgca  
240  
aagctcgagc ggacggcggg ggcggccgga gcctctctcg ggggagccgc gcctgaggag  
300  
gcggaagaac cccctgacg cgactggcgt gtgcttctgc ccgccaccgc ccctcccgt  
360  
ctcaccggg cgtccctgg ccaactgccc tgccgaggag gcagcgggc cagcggtct  
420  
cctttccaca gccggcgctc cgcgaccgc ttggctctg agcccgtcgg gtaggtctc  
480  
ctcgagtcc cgctcttcac ccttccctc accctcttct ttcgtcacc gtccccgacc  
540  
ccaccgagc cggcgccctc agctgcccc ggccatggcg tcgggagcca ctctgaaaag  
600  
gactctggat ttgacccgc tgttgagccc ggcgctcccc aagcgcaggc gatgtgcgcc  
660  
attgtcggcg ccacctcgg ccgctgcctc cccgttgctg gcggccggg ccaccgccc  
720  
ctccttctcc gctgcggcgg cctcgccgca gaagtatctc cgaatggagc catccccct  
780  
cggcgacgcc tctccccgcc tcaccacaga acaaattctg tacaacataa aacaagagta  
840  
taaacgaatg cagaagagaa gacatttaga aacgagtttc caacagacag atccgtgttg  
900  
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960  
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 <213> Homo sapiens

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 Ser Asp Ser Lys Cys Leu Leu Leu Leu Gly Ala Val Ala His Ala Cys  
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 Asp Arg Asp Tyr Pro Gly  
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 <213> Homo sapiens

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1752

&lt;210&gt; 2656

&lt;211&gt; 493

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2656

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 20      25      30
Arg Cys Leu Leu Met Pro Gln Cys Asn Ala Phe Leu Ser Lys Ile Met
 35      40      45
Thr Ser Leu Leu Ser Pro Pro His Arg Arg Pro Thr Leu His Arg Arg
 50      55      60
Pro Thr Leu Pro Tyr Arg Thr Trp Glu Ala Ala Leu Arg Gln Lys Val
 65      70      75      80
Gln Gln Trp Tyr Thr Ala Val Gly Gln Thr Glu Asn Pro Asp Asn Cys
 85      90      95
Ala Glu Lys Leu Gly Leu Cys Pro Gln Phe Phe Lys Val Leu Gly Glu
 100     105     110
Val Asn Pro Leu Glu Glu Lys Pro Phe His Glu Leu Pro Phe Tyr Gln
 115     120     125
Lys Val Trp Leu Leu Lys Gly Leu Cys Asp Phe Val Tyr Asp Thr His
 130     135     140
Lys Glu Val Gln Asp Ala Val Leu Gly Gln Pro Ile His Glu Cys Arg
 145     150     155     160
Ala Val Ile Leu Arg Tyr Asp Tyr Leu Glu Thr Ala Tyr Val His Phe
 165     170     175
Pro Gln Phe Cys Gly Ala Asp Val Arg Ile Tyr Lys Gln Arg Pro Phe
 180     185     190
Gln Ala Pro Glu Phe Pro Ile Pro Pro Ile Lys Ile Gln Arg Val Pro
 195     200     205
Arg Ile Lys Leu Glu Lys Leu Lys Cys Asp Tyr Val Ser Thr Ser Asn
 210     215     220
Gly Glu His Arg Cys Ser Arg Asp Ser Leu Pro Ser Ser Phe Lys Lys
 225     230     235     240
Glu Gln Glu Asn Asn Phe Asp Pro Ala Cys Cys Pro Ala Lys Met Ile
 245     250     255
Leu Asp Asn His Asp Ile Ser Val Glu Met Gly Val Lys Ser Asn Tyr
 260     265     270
Glu Ile Arg Ile Arg Arg Pro Cys Glu Ile Lys Lys Thr Asp Cys Cys
 275     280     285
Lys Glu Asn Leu Glu Lys Pro Arg Ser Pro Gly Glu Val Thr Gly Phe
 290     295     300
Gly Glu Pro Leu Ser Pro Gly Glu Ile Arg Phe Ile Glu Asn Gln Glu
 305     310     315     320
Lys Tyr Gly Glu Ala Ser Arg Ile Lys Ile Glu Pro Ser Pro Leu Lys
 325     330     335
Glu Asn Thr Leu Lys Ser Cys Gln Ile His Val Asn Gly Ser His Ser
 340     345     350
Asp His Pro Glu Ile Asn Cys His Lys Val Val Arg Asp Ile Leu Leu
 355     360     365
Glu Gln Ser Leu Gln Ser His Lys Lys Leu Lys Leu Thr Lys Met Arg
 370     375     380
Ala Lys Lys Lys Lys Lys Lys Lys Lys Lys Leu Lys Asp Val Leu Asn
 385     390     395     400
Glu Asn Leu Gln Arg Lys Arg Glu Gly Leu His Ser Leu Ala Phe Lys
 405     410     415
Ser Tyr Lys Pro Glu Ile Gln Asn Lys Leu Leu Ile Ile Lys Lys Lys

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<210> 2657
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<212> DNA
<213> Homo sapiens
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<210> 2658
<211> 76
<212> PRT
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<213> Homo sapiens

<400> 2658

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      20           25           30
Leu Trp Gly Gly Ala Gly Glu Arg Gly Cys Gln Ala Trp Ala Ala Ala
      35           40           45
Asp Leu Gly Gly His Gly Gly Ser Met Pro Ser Thr Ala Gly Trp Gly
      50           55           60
Ala Leu Pro Gly Pro Ala Pro Ser Met His Gly Trp
65           70           75

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<210> 2659

<211> 691

<212> DNA

<213> Homo sapiens

<400> 2659

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120
aatggagaga acaccttcaa acgcattgga cccccgctgg agaagcctgt ggagaagggtg
180
cagaggggtgg aggccctccc gagggccgtt ccgcagaacc tgccacagcc acagatgcca
240
ccctatgcct tcgcgcaccc acccttcccc ctgcctcccg tgcggcctgt gttcaacaac
300
ttcccactca acatggggcc tatcccagcc ccgtacgtgc cccctctgcc caacgtgcgg
360
gtcaactatg acttcggtcc catccacatg cccctggagc acaacctgcc catgcacttt
420
ggccccccagc cgcggcatcg cttctgatgg ccccgaaacc ccattgagca gcacaaagcc
480
cgtttgggggt aggagtgtgg atggagaacc ctcccccaag gctgggtgtct gtaccattgc
540
atcctaagtc agcttgaagg gtaggctggg tttcttccca cccctttcct agaagggtta
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691

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<210> 2660

<211> 120

<212> PRT

<213> Homo sapiens

<400> 2660

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Thr Phe Lys Arg Ile Gly Pro Pro Leu Glu Lys Pro Val Glu Lys Val

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	50					55					60				
Pro	Val	Arg	Pro	Val	Phe	Asn	Asn	Phe	Pro	Leu	Asn	Met	Gly	Pro	Ile
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Pro	Ala	Pro	Tyr	Val	Pro	Pro	Leu	Pro	Asn	Val	Arg	Val	Asn	Tyr	Asp
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Phe	Gly	Pro	Ile	His	Met	Pro	Leu	Glu	His	Asn	Leu	Pro	Met	His	Phe
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Gly	Pro	Gln	Pro	Arg	His	Arg	Phe								
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&lt;210&gt; 2661

&lt;211&gt; 1395

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2661

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 660  
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 720  
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 1020



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<210> 2662

<211> 415

<212> PRT

<213> Homo sapiens

<400> 2662

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			20					25					30		
Lys	Leu	Glu	Met	Lys	Ala	Leu	Arg	Glu	Leu	Asp	Arg	Phe	Ser	Val	Leu
		35					40					45			
Asn	Ser	Gln	His	Met	Phe	Glu	Val	Leu	Ala	Ala	Met	Asn	His	Arg	Ser
	50					55					60				
Leu	Ile	Leu	Leu	Asp	Glu	Cys	Ser	Lys	Val	Val	Leu	Asp	Asn	Ile	His
65				70					75					80	
Gly	Cys	Pro	Leu	Arg	Ile	Met	Ile	Asn	Ile	Leu	Gln	Ser	Cys	Lys	Asp
			85					90						95	
Leu	Gln	Tyr	His	Asn	Leu	Asp	Leu	Phe	Lys	Gly	Leu	Ala	Asp	Tyr	Val
		100					105						110		
Ala	Ala	Thr	Phe	Asp	Ile	Trp	Lys	Phe	Arg	Lys	Val	Leu	Phe	Ile	Leu
		115					120					125			
Ile	Leu	Phe	Glu	Asn	Leu	Gly	Phe	Arg	Pro	Val	Gly	Leu	Met	Asp	Leu
	130					135					140				
Phe	Met	Lys	Arg	Ile	Val	Glu	Asp	Pro	Glu	Ser	Leu	Asn	Met	Lys	Asn
145				150					155					160	
Ile	Leu	Ser	Ile	Leu	His	Thr	Tyr	Ser	Ser	Leu	Asn	His	Val	Tyr	Lys
			165					170						175	
Cys	Gln	Asn	Lys	Glu	Gln	Phe	Val	Glu	Val	Met	Ala	Ser	Ala	Leu	Thr
		180						185					190		
Gly	Tyr	Leu	His	Thr	Ile	Ser	Ser	Glu	Asn	Leu	Leu	Asp	Ala	Val	Tyr
	195					200						205			
Ser	Phe	Cys	Leu	Met	Asn	Tyr	Phe	Pro	Leu	Ala	Pro	Phe	Asn	Gln	Leu
	210					215						220			
Leu	Gln	Lys	Asp	Ile	Ile	Ser	Glu	Leu	Leu	Thr	Ser	Asp	Asp	Met	Lys
225				230				235						240	
Asn	Ala	Tyr	Lys	Leu	His	Thr	Leu	Asp	Thr	Cys	Leu	Lys	Leu	Asp	Asp
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<210> 2663
<211> 1024
<212> DNA
<213> Homo sapiens
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<210> 2664  
 <211> 199  
 <212> PRT  
 <213> Homo sapiens

<400> 2664  
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 35 40 45  
 Pro Tyr Leu Ala Cys Tyr Ser Leu Ser Val Thr Ile Leu Leu Leu Asn  
 50 55 60  
 Phe Leu Arg Ser His Cys Phe Thr Gln Ala Met Leu Ser Gln Pro Arg  
 65 70 75 80  
 Met Glu Ser Leu Asp Thr Pro Ala Ala Tyr Ser Leu Gly Leu Ala Leu  
 85 90 95  
 Leu Gly Leu Gly Val Val Leu Val Leu Ser Ser Phe Phe Ala Leu Gly  
 100 105 110  
 Phe Ala Gly Thr Phe Leu Gly Asp Tyr Phe Gly Ile Leu Lys Glu Ala  
 115 120 125  
 Arg Val Thr Val Phe Pro Phe Asn Ile Leu Asp Asn Pro Met Tyr Trp  
 130 135 140  
 Gly Ser Thr Ala Asn Tyr Leu Gly Trp Ala Ile Met His Ala Ser Pro  
 145 150 155 160  
 Thr Gly Leu Leu Leu Thr Val Leu Val Ala Leu Thr Tyr Ile Met Ala  
 165 170 175  
 Leu Leu Tyr Glu Pro Phe Thr Ala Glu Ile Tyr Arg Gln Lys Ala  
 180 185 190  
 Ser Gly Ser His Lys Arg Ser  
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<210> 2665  
 <211> 720  
 <212> DNA  
 <213> Homo sapiens

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<210> 2666

<211> 153

<212> PRT

<213> Homo sapiens

<400> 2666

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			20					25				30			
Asp	Gln	Ala	Val	Glu	Ala	Phe	Lys	Thr	Ala	Lys	Glu	Pro	Ile	Val	Val
		35					40				45				
Gln	Val	Leu	Arg	Arg	Thr	Pro	Arg	Thr	Lys	Met	Phe	Thr	Pro	Pro	Ser
	50				55					60					
Glu	Ser	Gln	Leu	Val	Asp	Thr	Gly	Thr	Gln	Thr	Asp	Ile	Thr	Phe	Glu
65				70					75					80	
His	Ile	Met	Ala	Leu	Thr	Lys	Met	Ser	Ser	Pro	Ser	Pro	Pro	Val	Leu
			85					90					95		
Asp	Pro	Tyr	Leu	Leu	Pro	Glu	Glu	His	Pro	Ser	Ala	His	Glu	Tyr	Tyr
		100					105					110			
Asp	Pro	Asn	Asp	Tyr	Ile	Gly	Asp	Ile	His	Gln	Glu	Met	Asp	Arg	Glu
	115					120					125				
Glu	Leu	Glu	Leu	Glu	Glu	Val	Asp	Leu	Tyr	Arg	Met	Asn	Ser	Gln	Asp
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Lys	Leu	Gly	Leu	Thr	Val	Cys	Tyr	Arg							
145					150										

<210> 2667

<211> 289

<212> DNA

<213> Homo sapiens

<400> 2667

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 <213> Homo sapiens

<400> 2668  
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 Asn Pro Phe Ser Val Cys Pro Arg Trp Val Pro Gly Leu Cys Trp Arg  
 35 40 45  
 Thr Arg His Phe Lys Glu Ser Ile Lys Phe Ile His Glu Cys Arg Leu  
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 Arg Gly Glu Ser Cys Leu Val His Cys Leu Ala Gly Val Ser Arg Ser  
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<210> 2669  
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<210> 2670

<211> 979

<212> PRT

<213> Homo sapiens

<400> 2670

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Cys	Met	Glu	Lys	Leu	Arg	Asp	Ala	Arg	Leu	Cys	Pro	His	Cys	Ser	Lys
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Leu	Cys	Cys	Phe	Ser	Cys	Ile	Arg	Arg	Trp	Leu	Thr	Glu	Gln	Arg	Ala
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Gln	Cys	Pro	His	Cys	Arg	Ala	Pro	Leu	Gln	Leu	Arg	Glu	Leu	Val	Asn
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Cys	Arg	Trp	Ala	Glu	Glu	Val	Thr	Gln	Gln	Leu	Asp	Thr	Leu	Gln	Leu
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Cys	Ser	Leu	Thr	Lys	His	Glu	Glu	Asn	Glu	Lys	Asp	Lys	Cys	Glu	Asn
			100					105					110		
His	His	Glu	Lys	Leu	Ser	Val	Phe	Cys	Trp	Thr	Cys	Lys	Lys	Cys	Ile
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Cys	His	Gln	Cys	Ala	Leu	Trp	Gly	Gly	Met	His	Gly	Gly	His	Thr	Phe
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Glu	Val	Ala	Lys	Leu	Arg	Arg	Arg	Leu	Met	Glu	Leu	Ile	Ser	Leu	Val
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Gln	Glu	Val	Glu	Arg	Asn	Val	Glu	Ala	Val	Arg	Asn	Ala	Lys	Asp	Glu
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Asp	Thr	Gln	Leu	Lys	Asn	Lys	Leu	Ile	Thr	Leu	Met	Gly	Gln	Lys	Thr
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Glu	His	Gln	Leu	Arg	Ser	Cys	Ser	Lys	Ser	Glu	Leu	Ile	Ser	Lys	Ser



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Ser	Glu	Ile	Leu	Met	Met	Phe	Gln	Gln	Val	His	Arg	Lys	Pro
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Ser	Phe	Val	Thr	Thr	Pro	Val	Pro	Pro	Asp	Phe	Thr	Ser	Glu
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Pro	Ser	Tyr	Asp	Ser	Ala	Thr	Phe	Val	Leu	Glu	Asn	Phe	Ser
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Arg	Gln	Arg	Ala	Asp	Pro	Val	Tyr	Ser	Pro	Pro	Leu	Gln	Val
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Leu	Cys	Trp	Arg	Leu	Lys	Val	Tyr	Pro	Asp	Gly	Asn	Gly	Val
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Gly	Tyr	Tyr	Leu	Ser	Val	Phe	Leu	Glu	Leu	Ser	Ala	Gly	Leu
			340					345					350
Thr	Ser	Lys	Tyr	Glu	Tyr	Arg	Val	Glu	Met	Val	His	Gln	Ser
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Asp	Pro	Thr	Lys	Asn	Ile	Ile	Arg	Glu	Phe	Ala	Ser	Asp	Phe
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Gly	Glu	Cys	Trp	Gly	Tyr	Asn	Arg	Phe	Phe	Arg	Leu	Asp	Leu
385				390						395			400
Asn	Glu	Gly	Tyr	Leu	Asn	Pro	Gln	Asn	Asp	Thr	Val	Ile	Leu
			405						410				415
Gln	Val	Arg	Ser	Pro	Thr	Phe	Phe	Gln	Lys	Ser	Arg	Asp	Gln
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Tyr	Ile	Thr	Gln	Leu	Glu	Ala	Ala	Gln	Thr	Ser	Tyr	Ile	Gln
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Ser	Arg	Asp	Leu	Ser	Pro	Pro	Asp	Asn	His	Leu	Ser	Pro	Gln
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Asp	Ala	Leu	Glu	Thr	Arg	Ala	Lys	Lys	Ser	Ala	Cys	Ser	Asp
			485						490				495
Leu	Glu	Gly	Gly	Pro	Thr	Thr	Ala	Ser	Val	Arg	Glu	Ala	Lys
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Glu	Glu	Asp	Glu	Glu	Lys	Ile	Gln	Asn	Glu	Asp	Tyr	His	His
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Ala	Ala	Ala	Ala	Gly	Pro	Ala	Gly	Ser	Ser	His	Gly	Tyr	Val
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Ser	Ser	Arg	Ile	Ser	Arg	Arg	Thr	His	Leu	Cys	Ser	Ala	Ala
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Lys	Asp	Arg	Ser	Ser	Ile	Glu	Asn	Leu	Trp	Gly	Leu	Gln	Pro
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Pro	Ala	Ser	Leu	Leu	Gln	Pro	Thr	Ala	Ser	Tyr	Ser	Arg	Lys
			660					665				670	
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675                      680                      685  
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 Glu Leu Leu Ala Lys Ser Ser Val Ala Asn Cys Tyr Ile Arg Asn Ser  
 755                      760                      765  
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 770                      775                      780  
 Gly Ser Leu Ser Leu Arg Arg Ala Val Asp Pro Gly Glu Asn Ser Arg  
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 Ser Lys Gly Asp Cys Gln Thr Leu Ser Glu Gly Ser Pro Gly Ser Ser  
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 Asp Ser Asp Ala Val Val Val Ala Val Phe Ser Gly Leu Pro Ala Val  
 850                      855                      860  
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 His Leu Glu Gly Leu Gln Met Thr Asp Leu Glu Asn Asn Ser Glu Thr  
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 Glu Gln Glu Glu His Thr Ser Val Gly Gly Phe His Asp Ser Phe Met  
 930                      935                      940  
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 945                      950                      955                      960  
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&lt;210&gt; 2671

&lt;211&gt; 814

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2671

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<210> 2672

<211> 223

<212> PRT

<213> Homo sapiens

<400> 2672

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			20					25					30		
Lys	Asp	Ser	Arg	Ala	Val	Ser	Arg	His	Gly	Arg	Gly	Asn	Cys	Gly	Ala
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Phe	Ala	Ile	Leu	Ser	Pro	Ser	Pro	Tyr	Leu	Arg	Pro	Arg	Gly	Arg	Ala
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Ser	Ser	Arg	Glu	Arg	Gln	Ser	Pro	Ser	Lys	Leu	Gln	Gln	Val	Ser	Ser
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Gly	Thr	Trp	Ala	Ser	Arg	Phe	Pro	Trp	Gln	Pro	Thr	Ser	Val	Ala	Leu
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210

215

220

&lt;210&gt; 2673

&lt;211&gt; 5035

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2673

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<210> 2674

<211> 690

<212> PRT

<213> Homo sapiens

<400> 2674

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		20					25						30		
Phe	Ile	Arg	Asp	Ser	Leu	Glu	Lys	Ser	Asp	Gln	Leu	Thr	Lys	Asn	Met
	35					40					45				
Val	Ser	Ile	Leu	Ser	Ser	Phe	Glu	Ser	Arg	Leu	Met	Lys	Leu	Glu	Asn
	50					55				60					
Ser	Ile	Ile	Pro	Val	His	Lys	Gln	Thr	Glu	Asn	Leu	Gln	Arg	Leu	Gln
65				70					75				80		
Glu	Asn	Val	Glu	Lys	Thr	Leu	Ser	Cys	Leu	Asp	His	Val	Ile	Ser	Tyr
			85					90					95		
Tyr	His	Val	Ala	Ser	Asp	Thr	Glu	Lys	Ile	Ile	Arg	Glu	Gly	Pro	Thr
		100					105					110			
Gly	Arg	Leu	Glu	Glu	Tyr	Leu	Gly	Ser	Met	Ala	Lys	Ile	Gln	Lys	Ala
	115					120						125			
Val	Glu	Tyr	Phe	Gln	Asp	Asn	Ser	Pro	Asp	Ser	Pro	Glu	Leu	Asn	Lys
	130					135					140				
Val	Lys	Leu	Leu	Phe	Glu	Arg	Gly	Lys	Glu	Ala	Leu	Glu	Ser	Glu	Phe
145				150					155					160	
Arg	Ser	Leu	Met	Thr	Arg	His	Ser	Lys	Val	Val	Ser	Pro	Val	Leu	Ile
			165					170					175		
Leu	Asp	Leu	Ile	Ser	Gly	Asp	Asp	Asp	Leu	Glu	Ala	Gln	Glu	Asp	Val
	180						185					190			
Thr	Leu	Glu	His	Leu	Pro	Glu	Ser	Val	Leu	Gln	Asp	Val	Ile	Arg	Ile
	195					200					205				
Ser	Arg	Trp	Leu	Val	Glu	Tyr	Gly	Arg	Asn	Gln	Asp	Phe	Met	Asn	Val
	210					215					220				
Tyr	Tyr	Gln	Ile	Arg	Ser	Ser	Gln	Leu	Asp	Arg	Ser	Ile	Lys	Gly	Leu
225				230					235					240	
Lys	Glu	His	Phe	His	Lys	Ser	Ser	Ser	Ser	Ser	Gly	Val	Pro	Tyr	Ser
			245					250					255		
Pro	Ala	Ile	Pro	Asn	Lys	Arg	Lys	Asp	Thr	Pro	Thr	Lys	Lys	Pro	Val

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 Lys Arg Pro Gly Thr Ile Arg Lys Ala Gln Asn Leu Leu Lys Gln Tyr  
 275 280 285  
 Ser Gln His Gly Leu Asp Gly Lys Lys Gly Gly Ser Asn Leu Ile Pro  
 290 295 300  
 Leu Glu Gly Arg Asp Asp Met Leu Asp Val Glu Thr Asp Ala Tyr Ile  
 305 310 315 320  
 His Cys Val Ser Ala Phe Val Lys Leu Ala Gln Ser Glu Tyr Gln Leu  
 325 330 335  
 Leu Ala Asp Ile Ile Pro Glu His His Gln Lys Lys Thr Phe Asp Ser  
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 Leu Ile Gln Asp Ala Leu Asp Gly Leu Met Leu Glu Gly Glu Asn Ile  
 355 360 365  
 Val Ser Ala Ala Arg Lys Ala Ile Val Arg His Asp Phe Ser Thr Val  
 370 375 380  
 Leu Thr Val Phe Pro Ile Leu Arg His Leu Lys Gln Thr Lys Pro Glu  
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 Phe Asp Gln Val Leu Gln Gly Thr Ala Ala Ser Thr Lys Asn Lys Leu  
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 Pro Gly Leu Ile Thr Ser Met Glu Thr Ile Gly Ala Lys Ala Leu Glu  
 420 425 430  
 Asp Phe Ala Asp Asn Ile Lys Asn Asp Pro Asp Lys Glu Tyr Asn Met  
 435 440 445  
 Pro Lys Asp Gly Thr Val His Glu Leu Thr Ser Asn Ala Ile Leu Phe  
 450 455 460  
 Leu Gln Gln Leu Leu Asp Phe Gln Glu Thr Ala Gly Ala Met Leu Ala  
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 Ser Gln Glu Thr Ser Ser Ser Ala Thr Ser Tyr Ser Ser Glu Phe Ser  
 485 490 495  
 Lys Arg Leu Leu Ser Thr Tyr Ile Cys Lys Val Leu Gly Asn Leu Gln  
 500 505 510  
 Leu Asn Leu Leu Ser Lys Ser Lys Val Tyr Glu Asp Pro Ala Leu Ser  
 515 520 525  
 Ala Ile Phe Leu His Asn Asn Tyr Asn Tyr Ile Leu Lys Ser Leu Glu  
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 Lys Ser Glu Leu Ile Gln Leu Val Ala Val Thr Gln Lys Thr Ala Glu  
 545 550 555 560  
 Arg Ser Tyr Arg Glu His Ile Glu Gln Gln Ile Gln Thr Tyr Gln Arg  
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 Ser Trp Leu Lys Val Thr Asp Tyr Ile Ala Glu Lys Asn Leu Pro Val  
 580 585 590  
 Phe Gln Pro Gly Val Lys Leu Arg Asp Lys Glu Arg Gln Ile Ile Lys  
 595 600 605  
 Glu Arg Phe Lys Gly Phe Asn Asp Gly Leu Glu Glu Leu Cys Lys Ile  
 610 615 620  
 Gln Lys Ala Trp Ala Ile Pro Asp Thr Glu Gln Arg Asp Arg Ile Arg  
 625 630 635 640  
 Gln Ala Gln Lys Thr Ile Val Lys Glu Thr Tyr Gly Ala Phe Leu Gln  
 645 650 655  
 Lys Phe Gly Ser Val Pro Phe Thr Lys Asn Pro Glu Lys Tyr Ile Lys  
 660 665 670  
 Tyr Gly Val Glu Gln Val Gly Asp Met Ile Asp Arg Leu Phe Asp Thr  
 675 680 685  
 Ser Ala



690

&lt;210&gt; 2675

&lt;211&gt; 711

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2675

```

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711

```

&lt;210&gt; 2676

&lt;211&gt; 180

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2676

```

Met Leu Leu Ile Tyr Val Gly Val Arg Ala Val Ser Val Leu Val Glu
1      5      10     15
Trp Gln Gln Trp Glu Ser Leu Arg Phe Gly Glu Tyr Gly Asp Pro Leu
20     25     30
Gln Cys Gly Ala Trp Val Gly Gln Cys Ala Leu Tyr Ile Val Ile Met
35     40     45
Ile Phe Glu Lys Ser Val Val Phe Ile Val Leu Leu Leu Gln Trp
50     55     60
Lys Lys Val Ala Leu Leu Asn Pro Ile Glu Asn Pro Asp Leu Lys Leu
65     70     75     80
Ala Ile Val Met Leu Ile Val Pro Phe Phe Val Asn Ala Leu Met Phe
85     90     95
Trp Val Val Asp Asn Phe Leu Met Arg Lys Gly Lys Thr Lys Ala Lys
100    105    110
Leu Glu Glu Arg Gly Ala Asn Gln Asp Ser Arg Asn Gly Ser Lys Val

```

```

      115              120              125
Arg Tyr Arg Arg Ala Ala Ser His Glu Glu Ser Glu Ser Glu Ile Leu
      130              135              140
Ile Ser Ala Asp Asp Glu Met Glu Glu Ser Asp Val Glu Glu Asp Leu
145              150              155              160
Arg Arg Leu Thr Pro Leu Lys Pro Val Lys Lys Lys Lys His Arg Phe
      165              170              175
Gly Leu Pro Val
      180

```

&lt;210&gt; 2677

&lt;211&gt; 735

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2677

```

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735

```

&lt;210&gt; 2678

&lt;211&gt; 170

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2678

```

Leu Ala Ala Leu Ser Ala Ala Trp Gly Arg Asp Gly Gln Val His Gly
1      5      10      15
Pro Ala Cys Val Ser Thr Pro Pro Ser Ala Gly Ala Phe Ser Leu Leu
20     25     30
Arg Glu Asn Phe Ser His Ala Pro Ser Pro Asp Met Ser Ala Ala Ser

```

```

      35              40              45
Leu Cys Ala Leu Glu Gln Leu Met Met Ala Gln Ala Gln Glu Cys Val
      50              55              60
Phe Glu Gly Leu Ser Pro Pro Ala Ser Met Ala Pro Gln Asp Cys Leu
65              70              75              80
Ala Gln Leu Arg Leu Ala Gln Glu Ala Ala Gln Val Ser Ser Gly Thr
      85              90              95
Arg Val Arg Met Gln Gly Val Gly Pro Ser Trp Gly Gln Ser Pro Gly
      100             105             110
Pro Gly Met Arg Glu Leu Ser His Leu Leu Pro Cys Val Ser Ala Pro
      115             120             125
Ser Gln Leu Leu Ser Cys Ser Leu Gly Gly Leu Val Arg Asn Leu Gly
      130             135             140
Thr Arg Ala Ser Ala Ser Arg Glu Trp His Lys Ala Ala Gly Thr Glu
145             150             155             160
Val Pro Gly Arg Leu Leu Gly Trp Trp Ser
      165             170

```

&lt;210&gt; 2679

&lt;211&gt; 560

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2679

```

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cgtcagactg agggacgcgt
560

```

&lt;210&gt; 2680

&lt;211&gt; 133

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2680

```

Met Glu Leu Ile Pro Gln Asp Ala Ser Pro His Arg Arg Ala Asp Pro
1           5           10           15
Arg Glu Thr Cys His Gln Asp Thr Ala Arg Ser Ser Lys Gly Ala Ser

```

```

      20      25      30
Met Leu Cys Ala Ala Ala Arg Leu Cys Pro Glu Glu Ser Gln Gly Thr
      35      40      45
Leu Val Ser Ala Ala Ala Ala Ser Arg Pro Trp Met Ala Arg Cys Ala
      50      55      60
Val Gly Arg His Arg Gly Cys Thr Arg Thr Gln Pro Asp Leu Gly Gln
      65      70      75      80
Phe Ala Pro Thr Leu Leu His Ser Arg Gly Pro Gly Ser Thr Cys Gln
      85      90      95
Cys Gly Ser Gln Asn Ala Gln Ala Lys Tyr Arg Asp Gln Leu Thr Ile
      100      105      110
Gln Val Glu Pro Glu Ala Trp Ala Gly Ala Ser Asn Cys Pro Pro Val
      115      120      125
Arg Leu Arg Asp Ala
      130

```

&lt;210&gt; 2681

&lt;211&gt; 585

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2681

```

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585

```

&lt;210&gt; 2682

&lt;211&gt; 116

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2682

```

Met Asp Glu Gln Lys Lys Arg Asp Glu Pro Leu Val Leu Lys Thr Asn
1      5      10      15
Leu Glu Arg Cys Pro Ala Arg Leu Ser Asp Ser Glu Asn Glu Glu Pro
20      25      30
Ser Arg Gly Gln Met Thr Gln Thr His Arg Ser Ala Phe Val Ser Lys

```

```

      35              40              45
Asn Asn Ser Tyr Ser Leu Ala Phe Leu Ala Gly Lys Leu Asn Ser Lys
  50              55              60
Val Glu Arg Ser Gln Ser Cys Ser Asp Thr Ala Gln Glu Arg Ala Lys
  65              70              75              80
Ser Arg Val Arg Ala Val Pro Gly Asn Lys Ala Lys Val His Leu Ser
      85              90              95
His Arg Pro Pro Gly Leu Val Arg Leu Ala Pro Ser Pro Pro Leu His
      100              105              110
Met Val Met Lys
      115

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<210> 2683  
 <211> 498  
 <212> DNA  
 <213> Homo sapiens

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<400> 2683
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  120
cgatccaaac atccagctct acttagtgtg gtcattcttg tggttttcct gatggcggtg
  180
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  240
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  300
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  360
cagatgttcc tctatctgac actagcaggt tcggaatttt tccttctagc caccatggcc
  420
tatgaccgct acgtggccat ctgccatcct ctccgttacc ctgtcctcat gaaccatagg
  480
gtctgtcttt tcctggca
  498

```

<210> 2684  
 <211> 149  
 <212> PRT  
 <213> Homo sapiens

```

<400> 2684
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  1              5              10              15
Ile Leu Met Gly Leu Phe Arg Arg Ser Lys His Pro Ala Leu Leu Ser
      20              25              30
Val Val Ile Phe Val Val Phe Leu Met Ala Leu Ser Glu Asn Ala Val
      35              40              45
Leu Ile Leu Leu Ile His Cys Asp Thr Tyr Leu His Thr Pro Met Tyr
      50              55              60
Phe Phe Ile Ser Gln Leu Ser Leu Met Asp Met Ala Tyr Ile Ser Val
      65              70              75              80
Thr Val Pro Lys Met Leu Leu Asp Gln Val Met Gly Val Asn Lys Ile

```

```

      85              90              95
Ser Ala Pro Glu Cys Gly Met Gln Met Phe Leu Tyr Leu Thr Leu Ala
      100              105              110
Gly Ser Glu Phe Phe Leu Leu Ala Thr Met Ala Tyr Asp Arg Tyr Val
      115              120              125
Ala Ile Cys His Pro Leu Arg Tyr Pro Val Leu Met Asn His Arg Val
      130              135              140
Cys Leu Phe Leu Ala
145

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<210> 2685  
 <211> 391  
 <212> DNA  
 <213> Homo sapiens

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<400> 2685
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120
ctctacctca caggcaaccg actgcgaagc cgggccctgg gccccctgct ctgggtggac
180
ctcgcctcgc tgcagttgct ggacatcgcc gggaatcagc tcacagagat cccggagggg
240
ctccccccat cgctggagta tctgtacctg cagaataaca agattagcgc tgttcctgct
300
agcgcccttg actctactcc caacctcaag gggatctttc tcagggttcaa caagctggct
360
gtgggctccg tagtagaaag cgccttccgg a
391

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<210> 2686  
 <211> 130  
 <212> PRT  
 <213> Homo sapiens

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<400> 2686
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1      5      10      15
Leu Lys Val Lys Arg Asn Glu Leu Ala Ala Leu Ala Arg Gly Ala Leu
20     25     30
Ala Gly Met Ala Gln Leu Arg Glu Leu Tyr Leu Thr Gly Asn Arg Leu
35     40     45
Arg Ser Arg Ala Leu Gly Pro Arg Ala Trp Val Asp Leu Ala His Leu
50     55     60
Gln Leu Leu Asp Ile Ala Gly Asn Gln Leu Thr Glu Ile Pro Glu Gly
65     70     75     80
Leu Pro Pro Ser Leu Glu Tyr Leu Tyr Leu Gln Asn Asn Lys Ile Ser
85     90     95
Ala Val Pro Ala Ser Ala Phe Asp Ser Thr Pro Asn Leu Lys Gly Ile
100    105    110
Phe Leu Arg Phe Asn Lys Leu Ala Val Gly Ser Val Val Glu Ser Ala
115    120    125
Phe Arg

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130

<210> 2687  
 <211> 399  
 <212> DNA  
 <213> Homo sapiens

<400> 2687  
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 60  
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 120  
 tgggaaatga caggtaagac agggactaca aaagaccaag cagacaataa aattccccct  
 180  
 gacagtccgc taggccttat gttaagatac cggaaagata atgaaaggac caaacacaag  
 240  
 aaaagacagc aaatgataaa atattgctgg tttatttgga ctaaggaacc catcctgaaa  
 300  
 cctttgggtct tttggccaca gttagggttg agcggggact ggatatgcca actcctaate  
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 399

<210> 2688  
 <211> 91  
 <212> PRT  
 <213> Homo sapiens

<400> 2688  
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 Pro Pro Asp Ser Pro Leu Gly Leu Met Leu Arg Tyr Arg Lys Asp Asn  
 20 25 30  
 Glu Arg Thr Lys His Lys Lys Arg Gln Gln Met Ile Lys Tyr Cys Trp  
 35 40 45  
 Phe Ile Trp Thr Lys Glu Pro Ile Leu Lys Pro Leu Val Phe Trp Pro  
 50 55 60  
 Gln Leu Gly Leu Ser Gly Asp Trp Ile Cys Gln Leu Leu Ile Gln Tyr  
 65 70 75 80  
 Val Lys Asp Lys Ser Pro Val Ser Gln Glu Glu  
 85 90

<210> 2689  
 <211> 560  
 <212> DNA  
 <213> Homo sapiens

<400> 2689  
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 60  
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 120  
 tcaaactcct ggcctcaaga aatcctcctg gttcagcctc acaaagctcc gagattacag  
 180

ttgcatgtct gtgacaagct tggaggccga gttgcaagct aagatccaag agagccatcc  
 240  
 tgaattgcga cgcgtgtact tcaataaggg attgtaaagc agggaggaaa cctctgcagc  
 300  
 tcattctgcc actgcaaagc tgggttagcc atgctggtga gaaaaatcct gttcaacctg  
 360  
 ggttggtata tcgtctttga aaaacaatga ctataaaagc tacaggaaaag gtatttcagg  
 420  
 acgtttattg aaggcattgg tggagctctc tgtatgtgtt ttgctctgca gggaactcaa  
 480  
 agttggcatt cccgtcacgg atgagaatgg gaaccgcttg ggggagtcgg cgaacgctgc  
 540  
 gaaacaagcc atcacgccag  
 560

<210> 2690

<211> 73

<212> PRT

<213> Homo sapiens

<400> 2690

Ala	Pro	Ile	Gln	Val	Gly	Leu	Val	Gly	Phe	Cys	Leu	Val	Phe	Ala	Thr
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Pro	Leu	Cys	Cys	Ala	Leu	Phe	Pro	Gln	Lys	Arg	Tyr	Lys	Asn	Val	Gly
		20						25					30		
Leu	Thr	Lys	Leu	Pro	Arg	Leu	Val	Ser	Asn	Ser	Trp	Pro	Gln	Glu	Ile
	35					40						45			
Leu	Leu	Val	Gln	Pro	His	Lys	Ala	Pro	Arg	Leu	Gln	Leu	His	Val	Cys
	50					55					60				
Asp	Lys	Leu	Gly	Gly	Arg	Val	Ala	Ser							
65					70										

<210> 2691

<211> 532

<212> DNA

<213> Homo sapiens

<400> 2691

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 120  
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 180  
 aacctcagca tgataagcca tgggcagcgg cagcgagtgg tccacgattt tcccaagtac  
 240  
 agtgtcaagg ttctgccgtg gctcagcccc gaggtcctcc agcagaatct ccagggttat  
 300  
 gatgccaaagt ctgacatcta cagtgtggga atcacagcct gtgaactggc caacggccat  
 360  
 gtccccctta aggatatgcc tgccacccag atgctgctag agaaactgaa cggcacagtg  
 420  
 cctgcctgt tggataccag caccatcccc gctgaggagc tgaccatgag cccttcgcgc  
 480



tcagtggcca actctggcct gagtgacagc ctgaccacca gcacaccccg gg  
532

<210> 2692

<211> 177

<212> PRT

<213> Homo sapiens

<400> 2692

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20 25 30  
Met Gly Tyr Val His Arg Ser Val Lys Ala Ser His Ile Leu Ile Ser  
35 40 45  
Val Asp Gly Lys Val Tyr Leu Ser Gly Leu Arg Ser Asn Leu Ser Met  
50 55 60  
Ile Ser His Gly Gln Arg Gln Arg Val Val His Asp Phe Pro Lys Tyr  
65 70 75 80  
Ser Val Lys Val Leu Pro Trp Leu Ser Pro Glu Val Leu Gln Gln Asn  
85 90 95  
Leu Gln Gly Tyr Asp Ala Lys Ser Asp Ile Tyr Ser Val Gly Ile Thr  
100 105 110  
Ala Cys Glu Leu Ala Asn Gly His Val Pro Phe Lys Asp Met Pro Ala  
115 120 125  
Thr Gln Met Leu Leu Glu Lys Leu Asn Gly Thr Val Pro Cys Leu Leu  
130 135 140  
Asp Thr Ser Thr Ile Pro Ala Glu Glu Leu Thr Met Ser Pro Ser Arg  
145 150 155 160  
Ser Val Ala Asn Ser Gly Leu Ser Asp Ser Leu Thr Thr Ser Thr Pro  
165 170 175  
Arg

<210> 2693

<211> 798

<212> DNA

<213> Homo sapiens

<400> 2693

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120  
aagctgcagg agttccctgt ggccatccgg accctgggca gactgcagga actgggggttc  
180  
cataacaaca acatcaaggc catcccagaa aaggccttca tggggaaccc tctgctacag  
240  
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360  
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420

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 798

<210> 2694

<211> 266

<212> PRT

<213> Homo sapiens

<400> 2694

Ala	Phe	Gln	Asn	Leu	Thr	Ser	Leu	Val	Val	Leu	His	Leu	His	Asn	Asn
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Arg	Ile	Gln	His	Leu	Gly	Thr	His	Ser	Phe	Glu	Gly	Leu	His	Asn	Leu
		20					25					30			
Glu	Thr	Leu	Asp	Leu	Asn	Tyr	Asn	Lys	Leu	Gln	Glu	Phe	Pro	Val	Ala
		35				40					45				
Ile	Arg	Thr	Leu	Gly	Arg	Leu	Gln	Glu	Leu	Gly	Phe	His	Asn	Asn	Asn
	50				55					60					
Ile	Lys	Ala	Ile	Pro	Glu	Lys	Ala	Phe	Met	Gly	Asn	Pro	Leu	Leu	Gln
65			70					75					80		
Thr	Ile	His	Phe	Tyr	Asp	Asn	Pro	Ile	Gln	Phe	Val	Gly	Arg	Ser	Ala
			85					90					95		
Phe	Gln	Tyr	Leu	Pro	Lys	Leu	His	Thr	Leu	Ser	Leu	Asn	Gly	Ala	Met
		100					105					110			
Asp	Ile	Gln	Glu	Phe	Pro	Asp	Leu	Lys	Gly	Thr	Thr	Ser	Leu	Glu	Ile
		115				120						125			
Leu	Thr	Leu	Thr	Arg	Ala	Gly	Ile	Arg	Leu	Leu	Pro	Ser	Gly	Met	Cys
	130				135						140				
Gln	Gln	Leu	Pro	Arg	Leu	Arg	Val	Leu	Glu	Leu	Ser	His	Asn	Gln	Ile
145			150						155					160	
Glu	Glu	Leu	Pro	Ser	Leu	His	Arg	Cys	Gln	Lys	Leu	Glu	Glu	Ile	Gly
		165						170					175		
Leu	Gln	His	Asn	Arg	Ile	Trp	Glu	Ile	Gly	Ala	Asp	Thr	Phe	Ser	Gln
		180					185					190			
Leu	Ser	Ser	Leu	Gln	Ala	Leu	Asp	Leu	Arg	Trp	Asn	Ala	Ile	Arg	Ser
	195					200					205				
Ile	His	Pro	Glu	Ala	Phe	Ser	Thr	Leu	His	Ser	Leu	Val	Lys	Leu	Asp
	210				215						220				
Leu	Thr	Asp	Asn	Gln	Leu	Thr	Thr	Leu	Pro	Leu	Ala	Gly	Leu	Gly	Gly
225			230						235					240	
Leu	Met	His	Leu	Lys	Leu	Lys	Gly	Asn	Leu	Ala	Leu	Ser	Gln	Ala	Phe
		245						250					255		
Ser	Lys	Asp	Ser	Phe	Pro	Lys	Leu	Arg	Ile						

260

265

&lt;210&gt; 2695

&lt;211&gt; 2265

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2695

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120  
tctgccctg aggactgcac gtccttcagc atcaacgcct cccaggggt ggtcgtggat  
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240  
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300  
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360  
gcggtggaaa tctccctgtg cgcagacatc acccgaccg gcaaagtga gccaaaccaga  
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&lt;210&gt; 2696

&lt;211&gt; 663

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2696

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Ala	Val	Cys	Val	Leu	Gly	Thr	Leu	Thr	Gln	Leu	Asp	Ile	Cys	Ser	Ser
			20					25					30		
Ala	Pro	Glu	Asp	Cys	Thr	Ser	Phe	Ser	Ile	Asn	Ala	Ser	Pro	Gly	Val
		35					40					45			
Val	Val	Asp	Ile	Ala	His	Ser	Pro	Pro	Ala	Lys	Lys	Lys	Ser	Thr	Gly
	50					55				60					
Ser	Ser	Thr	Trp	Pro	Leu	Asp	Pro	Gly	Val	Glu	Val	Thr	Leu	Thr	Met
65					70				75					80	
Lys	Ala	Ala	Ser	Gly	Ser	Thr	Gly	Asp	Gln	Lys	Val	Gln	Ile	Ser	Tyr
			85					90					95		
Tyr	Gly	Pro	Lys	Thr	Pro	Pro	Val	Lys	Ala	Leu	Leu	Tyr	Leu	Thr	Ala
			100					105					110		
Val	Glu	Ile	Ser	Leu	Cys	Ala	Asp	Ile	Thr	Arg	Thr	Gly	Lys	Val	Lys
		115					120						125		
Pro	Thr	Arg	Ala	Val	Lys	Asp	Gln	Arg	Thr	Trp	Thr	Trp	Gly	Pro	Cys

130		135		140
Gly Gln Gly Ala Ile Leu Leu Val Asn Cys Asp Arg Asp Asn Leu Glu				
145		150		155
Ser Ser Ala Met Asp Cys Glu Asp Asp Glu Val Leu Asp Ser Glu Asp				
	165		170	175
Leu Gln Asp Met Ser Leu Met Thr Leu Ser Thr Lys Thr Pro Lys Asp				
	180		185	190
Phe Phe Thr Asn His Thr Leu Val Leu His Val Ala Arg Ser Glu Met				
	195		200	205
Asp Lys Val Arg Val Phe Gln Ala Thr Arg Gly Lys Leu Ser Ser Lys				
	210		215	220
Cys Ser Val Val Leu Gly Pro Lys Trp Pro Ser His Tyr Leu Met Val				
225		230		235
Pro Gly Gly Lys His Asn Met Asp Phe Tyr Val Glu Ala Leu Ala Phe				
	245		250	255
Pro Asp Thr Asp Phe Pro Gly Leu Ile Thr Leu Thr Ile Ser Leu Leu				
	260		265	270
Asp Thr Ser Asn Leu Glu Leu Pro Glu Ala Val Val Phe Gln Asp Ser				
	275		280	285
Val Val Phe Arg Val Ala Pro Trp Ile Met Thr Pro Asn Thr Gln Pro				
	290		295	300
Pro Gln Glu Val Tyr Ala Cys Ser Ile Phe Glu Asn Glu Asp Phe Leu				
305		310		315
Lys Ser Val Thr Thr Leu Ala Met Lys Ala Lys Cys Lys Leu Thr Ile				
	325		330	335
Cys Pro Glu Glu Glu Asn Met Asp Asp Gln Trp Met Gln Asp Glu Met				
	340		345	350
Glu Ile Gly Tyr Ile Gln Ala Pro His Lys Thr Leu Pro Val Val Phe				
	355		360	365
Asp Ser Pro Arg Asn Arg Gly Leu Lys Glu Phe Pro Ile Lys Arg Val				
	370		375	380
Met Gly Pro Asp Phe Gly Tyr Val Thr Arg Gly Pro Gln Thr Gly Gly				
385		390		395
Ile Ser Gly Leu Asp Ser Phe Gly Asn Leu Glu Val Ser Pro Pro Val				
	405		410	415
Thr Val Arg Gly Lys Glu Tyr Pro Leu Gly Arg Ile Leu Phe Gly Asp				
	420		425	430
Ser Cys Tyr Pro Ser Asn Asp Ser Arg Gln Met His Gln Ala Leu Gln				
	435		440	445
Asp Phe Leu Ser Ala Gln Gln Val Gln Ala Pro Val Lys Leu Tyr Ser				
	450		455	460
Asp Trp Leu Ser Val Gly His Val Asp Glu Phe Leu Ser Phe Val Pro				
465		470		475
Ala Pro Asp Arg Lys Gly Phe Arg Leu Leu Leu Ala Ser Pro Arg Ser				
	485		490	495
Cys Tyr Lys Leu Phe Gln Glu Gln Gln Asn Glu Gly His Gly Glu Ala				
	500		505	510
Leu Leu Phe Glu Gly Ile Lys Lys Lys Lys Gln Gln Lys Ile Lys Asn				
	515		520	525
Ile Leu Ser Asn Lys Thr Leu Arg Glu His Asn Ser Phe Val Glu Arg				
	530		535	540
Cys Ile Asp Trp Asn Arg Glu Leu Leu Lys Arg Glu Leu Gly Leu Ala				
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Glu Ser Asp Ile Ile Asp Ile Pro Gln Leu Phe Lys Leu Lys Glu Phe				

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<400> 2697
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120
gtaactgacc ccaggaacat tctgttaacc aacgaacaac tcgagagtgc gagaaaaata
180
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240
gcaaagtaca tctatgattc agcttttcat cctgacactg gtgagaagat gattttgata
300
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480
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cctgaattgc gacgcgtgta cttcaataag ggattgtaaa gcaggggagga aacctctgca
1020

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1980  
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2468

&lt;210&gt; 2698

&lt;211&gt; 332

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2698

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 Pro Asn Ile Asn Ile Lys Glu Pro Arg Trp Asp Gln Ser Thr Phe Ile  
 20 25 30  
 Gly Arg Ala Asn His Phe Phe Thr Val Thr Asp Pro Arg Asn Ile Leu  
 35 40 45  
 Leu Thr Asn Glu Gln Leu Glu Ser Ala Arg Lys Ile Val His Asp Tyr  
 50 55 60  
 Arg Gln Gly Ile Val Pro Pro Gly Leu Thr Glu Asn Glu Leu Trp Arg  
 65 70 75 80  
 Ala Lys Tyr Ile Tyr Asp Ser Ala Phe His Pro Asp Thr Gly Glu Lys  
 85 90 95  
 Met Ile Leu Ile Gly Arg Met Ser Ala Gln Val Pro Met Asn Met Thr  
 100 105 110  
 Ile Thr Gly Cys Met Met Thr Phe Tyr Arg Thr Thr Pro Ala Val Leu  
 115 120 125  
 Phe Trp Gln Trp Ile Asn Gln Ser Phe Asn Ala Val Val Asn Tyr Thr  
 130 135 140  
 Asn Arg Ser Gly Asp Ala Pro Leu Thr Val Asn Glu Leu Gly Thr Ala  
 145 150 155 160  
 Tyr Val Ser Ala Thr Thr Gly Ala Val Ala Thr Ala Leu Gly Leu Asn  
 165 170 175  
 Ala Leu Thr Lys His Val Ser Pro Leu Ile Gly Arg Phe Val Pro Phe  
 180 185 190  
 Ala Ala Val Ala Ala Ala Asn Cys Ile Asn Ile Pro Leu Met Arg Gln  
 195 200 205  
 Arg Glu Leu Lys Val Gly Ile Pro Val Thr Asp Glu Asn Gly Asn Arg  
 210 215 220  
 Leu Gly Glu Ser Ala Asn Ala Ala Lys Gln Ala Ile Thr Gln Val Val  
 225 230 235 240  
 Val Ser Arg Ile Leu Met Ala Ala Pro Gly Met Ala Ile Pro Pro Phe  
 245 250 255  
 Ile Met Asn Thr Leu Glu Lys Lys Ala Phe Leu Lys Arg Phe Pro Trp  
 260 265 270  
 Met Ser Ala Pro Ile Gln Val Gly Leu Val Gly Phe Cys Leu Val Phe  
 275 280 285  
 Ala Thr Pro Leu Cys Cys Ala Leu Phe Pro Gln Lys Ser Ser Met Ser  
 290 295 300  
 Val Thr Ser Leu Glu Ala Glu Leu Gln Ala Lys Ile Gln Glu Ser His  
 305 310 315 320  
 Pro Glu Leu Arg Arg Val Tyr Phe Asn Lys Gly Leu  
 325 330

&lt;210&gt; 2699

&lt;211&gt; 974

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2699

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 ccggacatcc tgaagcaatt caccaaggct gccatccgca cccagccggc cgacgtgctg  
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 960  
 aaaaaaaaaa aaaa  
 974

&lt;210&gt; 2700

&lt;211&gt; 177

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2700

Met	Pro	Leu	Pro	Asp	Thr	Met	Phe	Cys	Ala	Gln	Gln	Ile	His	Ile	Pro
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Pro	Glu	Leu	Pro	Asp	Ile	Leu	Lys	Gln	Phe	Thr	Lys	Ala	Ala	Ile	Arg
		20						25					30		
Thr	Gln	Pro	Ala	Asp	Val	Leu	Arg	Trp	Ser	Ala	Gly	Tyr	Phe	Ser	Ala
		35					40					45			
Leu	Ser	Arg	Gly	Asp	Pro	Leu	Pro	Val	Lys	Asp	Arg	Met	Glu	Met	Pro
	50					55					60				
Val	Ala	Thr	Gln	Lys	Thr	Asp	Thr	Gly	Leu	Thr	Gln	Gly	Leu	Leu	Lys
65					70				75					80	
Val	Leu	His	Lys	Gln	Cys	His	His	Lys	Arg	Tyr	Val	Glu	Leu	Thr	Asp
			85					90					95		
Leu	Glu	Gln	Lys	Trp	Lys	Asn	Leu	Cys	Leu	Pro	Lys	Glu	Lys	Phe	Lys
		100					105					110			
Ala	Leu	Leu	Gln	Leu	Asp	Pro	Cys	Glu	Asn	Lys	Ile	Lys	Trp	Ile	Asn

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      115      120      125
Phe Leu Ala Leu Gly Cys Ser Met Leu Gly Gly Ser Leu Asn Thr Ala
      130      135      140
Leu Lys His Leu Cys Glu Ile Leu Thr Asp Asp Pro Glu Ala Gly Pro
145      150      155      160
Leu Ala Ser Pro Ser Arg Arg Phe Pro Thr Phe Thr Ala Thr Trp Pro
      165      170      175
Asp

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<210> 2701  
 <211> 646  
 <212> DNA  
 <213> Homo sapiens

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<400> 2701
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120
agcacactga gaggatgatt taagaaaaac tggctgggca cgggtgtcca tgcctgtaat
180
cccagcactt tgggaggcca aaatgccagc agctcttcct tgccagagat gatctgaccc
240
ggtgggggca gctggaaagc aacactggcc cccagctgaa gggcccagct gcagccagac
300
agatggtgct tgagaaccga ggcccgtga tctccagcc acagtccagc ccaaccactg
360
ccactttcca tgggacttag aacttcggag ttgctgcctt gcaattggag gaaggacctg
420
gggcccggag accaggagag ccgctggaag cagtacctgg aggacgagag gatcgcgctt
480
ttcctgcaga acgaggagtt catgaaggaa ctgcaacgga accgcgactt cctcctcgct
540
ctggagagag atcgattgaa atacgaatcc cagaaatcta aatccagcag cgtggctgtc
600
ggaaacgact ttggcttttc ctctcctgtc ccaggaactg gcgacg
646

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<210> 2702  
 <211> 92  
 <212> PRT  
 <213> Homo sapiens

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<400> 2702
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Leu Gly Pro Gly Asp Gln Glu Ser Arg Trp Lys Gln Tyr Leu Glu Asp
      20      25      30
Glu Arg Ile Ala Leu Phe Leu Gln Asn Glu Glu Phe Met Lys Glu Leu
      35      40      45
Gln Arg Asn Arg Asp Phe Leu Leu Ala Leu Glu Arg Asp Arg Leu Lys
      50      55      60
Tyr Glu Ser Gln Lys Ser Lys Ser Ser Ser Val Ala Val Gly Asn Asp

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65                      70                      75  
Phe Gly Phe Ser Ser Pro Val Pro Gly Thr Gly Asp  
                              85                      90

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<210> 2703
<211> 610
<212> DNA
<213> Homo sapiens
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<400> 2703
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120
ataaaatgca aaccaccctt ctgtagcaac tcacccatct gcctcgcccg tgaatgttcg
180
ggcccttggg gaaaagggct cttgccccca gaaggaaact tgctcccaag gcctttgctg
240
ggggaggggc ccaaagggga ggctccaag ttcctctttt tctttgatct ttctcttgct
300
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360
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420
acatttcctc tggctcccag gattccactt cttggaaaact tgggtgtcggc agctcccccc
480
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cttcacgcgt
610

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<210> 2704
<211> 108
<212> PRT
<213> Homo sapiens
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<400> 2704																	
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1				5					10					15			
Ser	Val	Val	Ser	Leu	Ala	Thr	Gly	Ala	Gly	Ala	Ile	Tyr	Leu	Leu	Tyr		
			20					25					30				
Lys	Ala	Ile	Lys	Ala	Gly	Ile	Lys	Cys	Lys	Pro	Pro	Leu	Cys	Ser	Asn		
		35					40					45					
Ser	Pro	Ile	Cys	Ile	Ala	Arg	Glu	Cys	Ser	Gly	Pro	Trp	Gly	Lys	Gly		
	50					55					60						
Leu	Leu	Pro	Pro	Glu	Gly	Thr	Leu	Leu	Pro	Arg	Pro	Leu	Leu	Gly	Glu		
65				70						75				80			
Gly	Pro	Lys	Gly	Glu	Ala	Ser	Lys	Phe	Pro	Leu	Phe	Phe	Asp	Leu	Ser		
			85						90					95			
Leu	Val	His	Leu	Pro	Gln	Ala	His	Pro	Ala	Ala	Ser						
			100					105									

<210> 2705  
 <211> 843  
 <212> DNA  
 <213> Homo sapiens

<400> 2705  
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 420  
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 atg  
 843

<210> 2706  
 <211> 251  
 <212> PRT  
 <213> Homo sapiens

<400> 2706  
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 1 5 10 15  
 Pro Arg Trp Asp Gln Ser Thr Phe Leu Gly Arg Ala Arg His Phe Phe  
 20 25 30  
 Thr Val Thr Asp Pro Arg Asn Leu Leu Leu Ser Gly Ala Gln Leu Glu  
 35 40 45  
 Ala Ser Arg Asn Ile Val Gln Asn Tyr Arg Ala Gly Val Val Thr Pro  
 50 55 60  
 Gly Ile Thr Glu Asp Gln Leu Trp Arg Ala Lys Tyr Val Tyr Asp Ser  
 65 70 75 80  
 Ala Phe His Pro Asp Thr Gly Glu Lys Val Val Leu Ile Gly Arg Met

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<400> 2707
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120
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420
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480
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660
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720
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780

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900  
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<210> 2708

<211> 337

<212> PRT

<213> Homo sapiens

<400> 2708

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		20					25				30				
Ala	Ala	Arg	Leu	Ala	Cys	Ser	Ala	Pro	Thr	Pro	Gly	Gly	Gly	Thr	Met
		35					40				45				
Pro	Phe	Asp	Phe	Arg	Arg	Phe	Asp	Ile	Tyr	Arg	Lys	Val	Pro	Lys	Asp
	50					55					60				
Leu	Thr	Gln	Pro	Thr	Tyr	Thr	Gly	Ala	Ile	Ile	Ser	Ile	Cys	Cys	Cys
65					70					75				80	
Leu	Phe	Ile	Leu	Phe	Leu	Phe	Leu	Ser	Glu	Leu	Thr	Gly	Phe	Ile	Thr
			85						90					95	
Thr	Glu	Val	Val	Asn	Glu	Leu	Tyr	Val	Asp	Asp	Pro	Asp	Lys	Asp	Ser
		100						105					110		
Gly	Gly	Lys	Ile	Asp	Val	Ser	Leu	Asn	Ile	Ser	Leu	Pro	Asn	Leu	His
		115					120					125			
Cys	Glu	Leu	Val	Gly	Leu	Asp	Ile	Gln	Asp	Glu	Met	Gly	Arg	His	Glu
	130					135					140				
Val	Gly	His	Ile	Asp	Asn	Ser	Met	Lys	Ile	Pro	Leu	Asn	Asn	Gly	Ala
145					150					155				160	
Gly	Cys	Arg	Phe	Glu	Gly	Gln	Phe	Ser	Ile	Asn	Lys	Val	Pro	Gly	Asn
			165					170						175	
Phe	His	Val	Ser	Thr	His	Ser	Ala	Thr	Ala	Gln	Pro	Gln	Asn	Pro	Asp
		180						185					190		
Met	Thr	His	Val	Ile	His	Lys	Leu	Ser	Phe	Gly	Asp	Thr	Leu	Gln	Val
	195						200					205			
Gln	Asn	Ile	His	Gly	Ala	Phe	Asn	Ala	Leu	Gly	Gly	Ala	Asp	Arg	Leu
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Thr	Ser	Asn	Pro	Leu	Ala	Ser	His	Asp	Tyr	Ile	Leu	Lys	Ile	Val	Pro

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Thr	Val	Tyr	Glu	Asp	Lys	Ser	Gly	Lys	Gln	Arg	Tyr	Ser	Tyr	Gln	Tyr
			245					250						255	
Thr	Val	Ala	Asn	Lys	Glu	Tyr	Val	Ala	Tyr	Ser	His	Thr	Gly	Arg	Ile
			260					265					270		
Ile	Pro	Ala	Ile	Trp	Phe	Arg	Tyr	Asp	Leu	Ser	Pro	Ile	Thr	Val	Lys
		275					280					285			
Tyr	Thr	Glu	Arg	Arg	Gln	Pro	Leu	Tyr	Arg	Phe	Ile	Thr	Thr	Ile	Cys
	290					295					300				
Ala	Ile	Ile	Gly	Gly	Thr	Phe	Thr	Val	Ala	Gly	Ile	Leu	Asp	Ser	Cys
305					310					315				320	
Ile	Phe	Thr	Ala	Ser	Glu	Ala	Trp	Lys	Lys	Ile	Gln	Leu	Gly	Lys	Met
			325					330					335		

His

&lt;210&gt; 2709

&lt;211&gt; 984

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2709

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Met Val Val Glu Arg Gln Gln Leu Leu Gln Asp Leu Glu Asp Leu Arg		
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Asn Val Ser Glu Thr Gln Gln Ser Leu Leu Ser Asp Gln Ile Leu Glu		
930	935	940
Leu Lys Ser Ser His Lys Arg Glu Leu Arg Glu Arg Glu Glu Val Leu		
945	950	955
Cys Gln Gln Gly Val Ser Glu Gln Leu Ala Ser Gln Arg Leu Glu Arg		
965	970	975
Leu Glu Met Glu His Asp Gln Glu Arg Gln Glu Met Met Ser Lys Leu		
980	985	990
Leu Ala Met Glu Asn Ile His Lys Ala Thr Cys Glu Thr Ala Asp Arg		
995	1000	1005
Glu Arg Ala Glu Met Ser Thr Glu Ile Ser Arg Leu Gln Ser Lys Ile		
1010	1015	1020
Lys Glu Met Gln Gln Ala Thr Ser Pro Leu Ser Met Leu Gln Ser Gly		
1025	1030	1035
Cys Gln Val Ile Gly Glu Glu Glu Val Glu Gly Asp Gly Ala Leu Ser		
1045	1050	1055
Leu Leu Gln Lys Gly Glu Gln Leu Leu Glu Glu Asn Gly Asp Val Leu		
1060	1065	1070
Leu Ser Leu Gln Arg Ala His Glu Gln Ala Val Lys Glu Asn Val Lys		
1075	1080	1085
Met Ala Thr Glu Ile Ser Arg Leu Gln Gln Arg Leu Gln Lys Leu Glu		
1090	1095	1100
Pro Gly Leu Val Met Ser Ser Cys Leu Asp Glu Pro Ala Thr Glu Phe		
1105	1110	1115
Phe Gly Asn Thr Ala Glu Gln Thr Glu Pro Phe Leu Gln Gln Asn Arg		
1125	1130	1135
Thr Lys Gln Val Glu Gly Val Thr Arg Arg His Val Leu Ser Asp Leu		
1140	1145	1150
Glu Asp Asp Glu Val Arg Asp Leu Gly Ser Thr Gly Thr Ser Ser Val		
1155	1160	1165
Gln Arg Gln Glu Val Lys Ile Glu Glu Ser Glu Ala Ser Val Glu Gly		
1170	1175	1180
Phe Ser Glu Leu Glu Asn Ser Glu Glu Thr Arg Thr Glu Ser Trp Glu		
1185	1190	1195
Leu Lys Asn His Ile Ser Leu Leu Gln Glu Gln Leu Met Met Phe Cys		
1205	1210	1215
Ala Asp Cys Asp Leu Ala Ser Glu Lys Lys Gln Glu Leu Leu Phe Asp		
1220	1225	1230
Val Ser Val Leu Lys Lys Lys Leu Lys Ile Leu Glu Arg Ile Pro Glu		
1235	1240	1245
Ala Ser Pro Arg Tyr Lys Leu Leu Tyr Glu Asp Val Ser Arg Glu Asn		
1250	1255	1260
Asp Cys Leu Gln Glu Glu Leu Glu Met Met Glu Thr Arg Tyr Asp Glu		



1265	1270	1275	1280
Ala Leu Glu Asn Asn Lys Glu Leu Thr Ala Glu Val Phe Arg Leu Gln			
1285	1290	1295	
Asp Glu Leu Lys Lys Met Glu Glu Val Thr Glu Thr Phe Leu Ser Leu			
1300	1305	1310	
Glu Lys Ser Tyr Asp Glu Val Lys Ile Glu Asn Glu Glu Leu Asn Val			
1315	1320	1325	
Leu Val Leu Arg Leu Gln Gly Lys Ile Glu Lys Leu Xaa Thr Arg Ala			
1330	1335	1340	
Trp Ser Ser Gly Val Thr Ala Ala Tyr Gly Lys Xaa Ser Leu Glu Asn			
1345	1350	1355	1360
Leu Glu Ile Glu Pro Asp Gly Asn Ile Leu Gln Leu Asn Gln Thr Leu			
1365	1370	1375	
Glu Glu Cys Val Pro Arg Val Arg Ser Val His His Val Ile Glu Glu			
1380	1385	1390	
Cys Lys Gln Glu Asn Gln Tyr Leu Glu Gly Asn Thr Gln Leu Leu Glu			
1395	1400	1405	
Lys Val Lys Ala His Glu Ile Ala Trp Leu His Gly Thr Ile Gln Thr			
1410	1415	1420	
His Gln Glu Arg Pro Arg Val Gln Asn Gln Val Ile Leu Glu Glu Asn			
1425	1430	1435	1440
Thr Thr Leu Leu Gly Phe Gln Asp Lys His Phe Gln His Gln Ala Thr			
1445	1450	1455	
Ile Ala Glu Leu Glu Leu Glu Lys Thr Lys Leu Gln Glu Leu Thr Arg			
1460	1465	1470	
Lys Leu Lys Glu Arg Val Pro Ile Leu Val Lys Gln Lys Asp Val Leu			
1475	1480	1485	
Ser Pro Gly Lys Lys Glu Glu Glu Leu Lys Ala Met Met His Asp Leu			
1490	1495	1500	
Gln Ile Pro Cys Ser Glu Met Gln Gln Lys Val Glu Leu Leu Lys Tyr			
1505	1510	1515	1520
Glu Ser Glu Lys Leu Gln Gln Glu Asn Ser Ile Leu Arg Asn Glu Ile			
1525	1530	1535	
Thr Thr Leu Asn Glu Glu Asp Ser Ile Ser Asn Leu Lys Leu Gly Thr			
1540	1545	1550	
Leu Asn Gly Ser Gln Glu Glu Met Trp Gln Lys Thr Glu Ser Val Lys			
1555	1560	1565	
Gln Glu Asn Ala Ala Val Leu Lys Met Val Glu Asn Leu Lys Lys Gln			
1570	1575	1580	
Ile Ser Glu Leu Lys Ile Lys Asn Gln Gln Leu Asp Leu Glu Asn Thr			
1585	1590	1595	1600
Glu Leu Ser Gln Lys Asn Ser Pro Asn Gln Glu Lys Leu Gln Glu Leu			
1605	1610	1615	
Asn Gln Leu Leu Thr Glu Met Leu Cys Gln Lys Glu Lys Glu Pro Gly			
1620	1625	1630	
Asn Ser Ala Leu Glu Glu Arg Glu Gln Glu Lys Phe Asn Leu Lys Glu			
1635	1640	1645	
Glu Pro Glu Arg Cys Lys Val Gln Ser Ser Thr Leu Val Ser Ser Leu			
1650	1655	1660	
Glu Ala Glu Leu Ser Glu Val Lys Ile Gln Thr His Ile Val Gln Gln			
1665	1670	1675	1680
Glu Asn Pro Leu Leu Gln Asp Glu Leu Glu Lys Met Lys Gln Leu His			
1685	1690	1695	
Arg Cys Pro Asp Leu Ser Asn Phe Gln Gln Lys Ile Ser Ser Val Leu			

	1700		1705		1710
Ser Tyr Asn Glu Lys Leu Leu Lys Glu Lys Glu Ala Leu Ser Glu Glu					
	1715		1720		1725
Leu Asn Ser Cys Val Asp Lys Leu Ala Lys Ser Ser Leu Leu Glu His					
	1730		1735		1740
Arg Ile Ala Thr Met Lys Gln Glu Gln Lys Ser Trp Glu His Gln Ser					
1745		1750		1755	1760
Ala Ser Leu Lys Thr Gln Leu Val Ala Ser Gln Glu Lys Val Gln Asn					
	1765		1770		1775
Leu Glu Asp Thr Val Gln Asn Val Asn Leu Gln Met Ser Arg Met Lys					
	1780		1785		1790
Ser Asp Pro Arg Val Thr Gln Gln Glu Lys Glu Ala Leu Lys Gln Glu					
	1795		1800		1805
Val Met Pro Leu His Lys Gln Leu Gln Asn Ser Val Xaa Lys Ser Trp					
	1810		1815		1820
Ala Pro Glu Ile Ala Thr His Pro Ser Gly Leu His Asn Gln Gln Lys					
1825		1830		1835	1840
Arg Leu Ser Trp Asp Lys Leu Asp His Leu Met Asn Glu Glu Gln Gln					
	1845		1850		1855
Leu Leu Trp Gln Glu Asn Glu Arg Leu Gln Thr Met Val Gln Asn Thr					
	1860		1865		1870
Lys Ala Glu Leu Thr His Ser Arg Glu Lys Val Arg Gln Leu Glu Ser					
	1875		1880		1885
Asn Leu Leu Pro Lys His Gln Lys His Leu Asn Pro Ser Gly Thr Met					
	1890		1895		1900
Asn Pro Thr Glu Gln Glu Lys Leu Ser Leu Lys Arg Glu Cys Asp Gln					
1905		1910		1915	1920
Phe Gln Lys Glu Gln Ser Pro Ala Asn Arg Lys Val Ser Gln Met Asn					
	1925		1930		1935
Ser Leu Glu Gln Glu Leu Glu Thr Ile His Leu Glu Asn Glu Gly Leu					
	1940		1945		1950
Lys Lys Lys Gln Val Lys Leu Asp Glu Gln Leu Met Glu Met Gln His					
	1955		1960		1965
Leu Arg Ser Thr Ala Thr Pro Ser Pro Ser Pro His Ala Trp Asp Leu					
	1970		1975		1980
Gln Leu Leu Gln Gln Gln Ala Cys Pro Met Val Pro Arg Glu Gln Phe					
1985		1990		1995	2000
Leu Gln Leu Gln Arg Gln Leu Leu Gln Ala Glu Arg Ile Asn Gln His					
	2005		2010		2015
Leu Gln Glu Glu Leu Glu Asn Arg Thr Ser Glu Thr Asn Thr Pro Gln					
	2020		2025		2030
Gly Asn Gln Glu Gln Leu Val Thr Val Met Glu Glu Arg Met Ile Glu					
	2035		2040		2045
Val Glu Gln Lys Leu Lys Leu Val Lys Arg Leu Leu Gln Glu Lys Val					
	2050		2055		2060
Asn Gln Leu Lys Glu Gln Val Ser Leu Pro Gly His Leu Cys Ser Pro					
2065		2070		2075	2080
Thr Ser His Ser Ser Phe Asn Ser Ser Phe Thr Ser Leu Tyr Cys His					
	2085		2090		2095

&lt;210&gt; 2713

&lt;211&gt; 2066

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2713

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gccgccggaa gcttctcgga ggagcagttc tgggaggcct gcgccgagct ccagcagccc  
180  
gctctggccg gggccgactg gcagctccta gtggagacct cgggcatcag catctaccgg  
240  
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300  
tcaccaactc tactggcaga catctatatg gactcagatt acagaaaaca atgggaccag  
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420  
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480  
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540  
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600  
gacggcaaga aggggagcaa agttttcatg tattacttcg ataaccggg tggccaaatt  
660  
ccgtcctggc tcattaactg ggccgccaag aatggagttc ctaacttctt gaaagacatg  
720  
gcaagagcct gtcagaacta cctcaagaaa acctaagaaa gagaactggg aacattgcat  
780  
ccatgggttg atgtctctgg aagtgaacc acccaatgtc tctggaagtg ccacctggaa  
840  
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900  
tctgtcttca gaggcctaca cactaccaca tcctttctaa gcatgtttgc ctgacatcca  
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1020  
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1080  
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1140  
acaacaaaat ttaagaatga ctatttgggc gggctggctc ttttgagct tgtgatttct  
1200  
tccagcttg gaggggctgc tggagtggtc atttcgttca gagctgactt tcagtgcacc  
1260  
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1380  
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1560

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 1680  
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 1800  
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 1860  
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 1920  
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 2066

<210> 2714

<211> 214

<212> PRT

<213> Homo sapiens

<400> 2714

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			20					25					30		
Leu	Val	Glu	Thr	Ser	Gly	Ile	Ser	Ile	Tyr	Arg	Leu	Leu	Asp	Lys	Lys
		35					40					45			
Thr	Gly	Leu	Tyr	Glu	Tyr	Lys	Val	Phe	Gly	Val	Leu	Glu	Asp	Cys	Ser
	50					55					60				
Pro	Thr	Leu	Leu	Ala	Asp	Ile	Tyr	Met	Asp	Ser	Asp	Tyr	Arg	Lys	Gln
65					70				75					80	
Trp	Asp	Gln	Tyr	Val	Lys	Glu	Leu	Tyr	Glu	Gln	Glu	Cys	Asn	Gly	Glu
			85					90					95		
Thr	Val	Val	Tyr	Trp	Glu	Val	Lys	Tyr	Pro	Phe	Pro	Met	Ser	Asn	Arg
			100					105					110		
Asp	Tyr	Val	Tyr	Leu	Arg	Gln	Arg	Arg	Asp	Leu	Asp	Met	Glu	Gly	Arg
		115				120						125			
Lys	Ile	His	Val	Ile	Leu	Ala	Arg	Ser	Thr	Ser	Met	Pro	Gln	Leu	Gly
	130					135						140			
Glu	Arg	Ser	Gly	Val	Ile	Arg	Val	Lys	Gln	Tyr	Lys	Gln	Ser	Leu	Ala
145				150					155					160	
Ile	Glu	Ser	Asp	Gly	Lys	Lys	Gly	Ser	Lys	Val	Phe	Met	Tyr	Tyr	Phe
			165					170					175		
Asp	Asn	Pro	Gly	Gly	Gln	Ile	Pro	Ser	Trp	Leu	Ile	Asn	Trp	Ala	Ala
		180					185					190			
Lys	Asn	Gly	Val	Pro	Asn	Phe	Leu	Lys	Asp	Met	Ala	Arg	Ala	Cys	Gln
	195						200					205			
Asn	Tyr	Leu	Lys	Lys	Thr										
		210													

<210> 2715  
 <211> 378  
 <212> DNA  
 <213> Homo sapiens

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 120  
 gaggaagagg aagaagaaga gatggatgta gatgaagcca caggggcagt taagaagcac  
 180  
 aatgggtgttg gaggcagtcc ccctaagtcc aagttactgt ttagtaacac agcagctcaa  
 240  
 aaattaagag gaatggatga agtatacaac ctcttctatg tcaacaacaa ctggatatatt  
 300  
 tttatgcgac tgcaccagat tctctgctg aggctgctac ggatttggtc ccaagccgaa  
 360  
 cggcaaattg aagaagaa  
 378

<210> 2716  
 <211> 126  
 <212> PRT  
 <213> Homo sapiens

<400> 2716  
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 Lys Ile Lys Gln Ile Met His His Phe Ile Pro Asp Leu Leu Phe Ala  
 20 25 30  
 Gln Arg Gly Asp Leu Ser Asp Val Glu Glu Glu Glu Glu Glu Met  
 35 40 45  
 Asp Val Asp Glu Ala Thr Gly Ala Val Lys Lys His Asn Gly Val Gly  
 50 55 60  
 Gly Ser Pro Pro Lys Ser Lys Leu Leu Phe Ser Asn Thr Ala Ala Gln  
 65 70 75 80  
 Lys Leu Arg Gly Met Asp Glu Val Tyr Asn Leu Phe Tyr Val Asn Asn  
 85 90 95  
 Asn Trp Tyr Ile Phe Met Arg Leu His Gln Ile Leu Cys Leu Arg Leu  
 100 105 110  
 Leu Arg Ile Cys Ser Gln Ala Glu Arg Gln Ile Glu Glu Glu  
 115 120 125

<210> 2717  
 <211> 2076  
 <212> DNA  
 <213> Homo sapiens

<400> 2717  
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 ttttaatacaa tagttatttaa cgattagtgt tgagaaaatt atttccctct acatacaaaa  
 120

atacagattt gaacactatg aaaaagatca agacaagtac catgaaaaac tggtccttca  
180  
aatgaaaggg ggaaaattga gggcaatgtg aggctttgcc tgctgtcggg gacaaatcaa  
240  
tagcagcaaa gctttggggc cccaaccac tccatacata cagacttgaa cccaaaagcc  
300  
aggccagcca ggggacgccc acccagggtt tccacgtcag ctgaaaaacc aaacacataa  
360  
acctaagttt gccaacggg catcgctca gaaagccac agttgtgtct ttaaactgcc  
420  
gaaatgaaag agacttgatg agtaaaatgt gatagttgtt aacattgccc cccaaaagtg  
480  
ccaccagggtg aagtaccacg gagaaatcat attggaaagt tactacttag ccacttgact  
540  
tgacttcctt ggttatcaaa taattacata ttctgaccct tcagaaggac accaaaagct  
600  
acaattttat gtttcaatcc atctgtacct tcatttgcaa tggctcagct agtttactca  
660  
agggttttgg gaccagacat aactcacgtc ctgcaggaag gagaagcaaa aggagccggt  
720  
gaagagtacg tgtctgtgtc ttggtgtcat ctagctcctc acagcaaaca gcctgttttg  
780  
ttcagcctga agcctggaaa aggccgccga gcctagccag agcatccaca acgaaccaat  
840  
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900  
cactctgcag tggcaggaag gccatgcctc tgcaggacgc tcgcactgat tctggaaggg  
960  
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1020  
ggacaccggc ctctcaccat ttacaccca aagacaggag gtcagggtc tgatgtact  
1080  
cttctgtttg taaaatatgg aaccacttcc tttgtactgt ttgaggtgag cagtggctcc  
1140  
aaactgagca agtgggttaa aaatgccaaa tgcaattata ctgacttata attatttcac  
1200  
agaaatatac tcttactctc agactattta aataagcagg aacaagatgc aggagaagca  
1260  
gcagcagaga ggaaagagga atagccaggg aatttttttt gttttttttc ttctttaaaa  
1320  
tacatacgaa gtgtaaagag aaaatggcca aaacctcaaa actaccattg ttgaaaacaa  
1380  
tattaaaagg acacaatcta aaatcatgct acaaaaatag tgttatcttg tttaactaaa  
1440  
tgtacatctt tttttccaat tccatgattg acaagagtgc ttatgcgacg catggaaggc  
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1620  
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1680  
caacaaaaat caagttagga aaagcactga ttttatccaa gtaggtcaat ttgaggcaag  
1740

attcaaaaac tcattttaaa atgggttaca gagtgaaaga gttgggaaca ggcagcccc  
 1800  
 tttgggcttg ggtcagccta cgagtccatc ccaggtgtcc tgccctcaca tctgccagcc  
 1860  
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 1920  
 aggggaacag aatcttgaag cttgcaaaat cgattctgga aaaagcaggc aagcaaagca  
 1980  
 gggcctgtgg ggggaagcag cgtgagtcag gcctcaccct ggtgcaaggg caccagcagg  
 2040  
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<210> 2718

<211> 110

<212> PRT

<213> Homo sapiens

<400> 2718

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		20					25						30		
Glu	Gly	Pro	Arg	Pro	Glu	Asn	Thr	Leu	Gly	Leu	Ser	Ser	Pro	Ala	Gln
		35				40					45				
Thr	Thr	Gly	Glu	Gly	Ala	Gly	His	Arg	Pro	Leu	Thr	Ile	Leu	His	Pro
	50					55					60				
Lys	Thr	Gly	Gly	Gln	Gly	Ser	Asp	Ala	Thr	Leu	Leu	Phe	Val	Lys	Tyr
65				70						75				80	
Gly	Thr	Thr	Phe	Phe	Val	Leu	Phe	Glu	Val	Ser	Ser	Gly	Ser	Lys	Leu
			85					90					95		
Ser	Lys	Trp	Leu	Lys	Asn	Ala	Lys	Cys	Asn	Tyr	Thr	Asp	Leu		
			100					105					110		

<210> 2719

<211> 546

<212> DNA

<213> Homo sapiens

<400> 2719

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 180  
 gaccctgttt gcgccccaga gagcatgggc agtgaggaca tgctcttcat gctgtacacc  
 240  
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 360  
 gccgacatcg gttggattac aggacacagc tacgtggtgt atgggcctct ctgcaatggg  
 420

gccaccagcg tcctttttga gagcacccca gtttatccca atgctggctg gtactgggag  
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 540  
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 546

<210> 2720  
 <211> 182  
 <212> PRT  
 <213> Homo sapiens

<400> 2720  
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 His Val Leu Val Ala His Arg Thr Asp Asn Lys Val His Met Gly Asp  
 35 40 45  
 Leu Asp Val Pro Leu Glu Gln Glu Met Ala Lys Glu Asp Pro Val Cys  
 50 55 60  
 Ala Pro Glu Ser Met Gly Ser Glu Asp Met Leu Phe Met Leu Tyr Thr  
 65 70 75 80  
 Ser Gly Ser Thr Gly Met Pro Lys Gly Ile Val His Thr Gln Ala Gly  
 85 90 95  
 Tyr Leu Leu Tyr Ala Ala Leu Thr His Lys Leu Val Phe Asp His Gln  
 100 105 110  
 Pro Gly Asp Ile Phe Gly Cys Val Ala Asp Ile Gly Trp Ile Thr Gly  
 115 120 125  
 His Ser Tyr Val Val Tyr Gly Pro Leu Cys Asn Gly Ala Thr Ser Val  
 130 135 140  
 Leu Phe Glu Ser Thr Pro Val Tyr Pro Asn Ala Gly Arg Tyr Trp Glu  
 145 150 155 160  
 Thr Val Glu Arg Leu Lys Ile Asn Gln Phe Tyr Gly Ala Pro Thr Ala  
 165 170 175  
 Val Arg Leu Leu Leu Lys  
 180

<210> 2721  
 <211> 5912  
 <212> DNA  
 <213> Homo sapiens

<400> 2721  
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 cgaggccgct cagactctgt ggattatgga cagacacact actatcacca aagacagaac  
 180  
 tctgatgaca agctcaatgg gtggcagaac tctcgggatt ctgggatttg catcaatgcc  
 240  
 tccaactggc aggacaaaag catgggggtgt gagaatggcc atgtgccct ctactcctcc  
 300



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<211> 508

<212> PRT

<213> Homo sapiens

<400> 2722

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Tyr	Gly	Gln	Thr	His	Tyr	Tyr	His	Gln	Arg	Gln	Asn	Ser	Asp	Asp	Lys
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Leu	Asn	Gly	Trp	Gln	Asn	Ser	Arg	Asp	Ser	Gly	Ile	Cys	Ile	Asn	Ala
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Leu	Tyr	Ser	Ser	Ser	Ser	Val	Pro	Thr	Thr	Ile	Asn	Thr	Ile	Gly	Thr
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Pro Arg Gln Pro Ser Leu Met Gly Pro Glu Ser Gln Ser Pro Asp Cys
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Lys Asp Gly Ala Ala Ala Thr Gly Ala Thr Ala Thr Pro Ser Ala Gly
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Ala Ser Gly Gly Leu Gln Pro His Gln Leu Ser Ser Cys Asp Gly Glu
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Arg Val Met Gly Lys Val Cys Thr Gln Leu Leu Val Ser Arg Pro Asp
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His Glu Ala Phe Thr Glu Thr Gln Lys Lys Arg Leu Leu Ser Trp Lys
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Leu Gly Leu Leu Gly Thr Ser Gly Phe Val Ser Ser Asn Gln Arg Asn
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Ser Val Gln Arg Thr Arg Ser Leu Pro Val His Thr Ser Pro Gln Asn
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Met Leu Met Phe Gln Gln Pro Glu Phe Gln Leu Pro Val Thr Glu Pro
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&lt;210&gt; 2723

&lt;211&gt; 1221

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2723

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&lt;210&gt; 2724

&lt;211&gt; 404

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2724

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Thr	Ala	Pro	Met	Trp	Pro	Asn	Thr	Phe	Trp	Ser	Ala	Ala	Glu	Asp	Gly
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Leu	Ile	Arg	Gln	Tyr	Asp	Leu	Arg	Glu	Asn	Ser	Lys	His	Ser	Glu	Val
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Lys	Gln	Gln	Ala	Asn	Glu	Ala	Phe	Ala	Cys	Gln	Gln	Trp	Thr	Gln	Ala
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&lt;210&gt; 2725

&lt;211&gt; 856

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2725

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<211> 148

<212> PRT

<213> Homo sapiens

<400> 2726

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Asp	Lys	Trp	Lys	Asp	Ile	Glu	Leu	Glu	Lys	Met	Lys	Ala	Gly	Gly	Asn
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Trp	Ser	Leu	Gln	Glu	Lys	Tyr	Asn	Ser	Arg	Ala	Ala	Ala	Leu	Phe	Arg
		100					105						110		
Asp	Lys	Val	Val	Ala	Leu	Ala	Glu	Gly	Arg	Glu	Trp	Ser	Leu	Glu	Ser
		115					120					125			
Ser	Pro	Ala	Gln	Asn	Trp	Thr	Pro	Pro	Gln	Pro	Arg	Thr	Leu	Pro	Ser
		130				135					140				
Met	Val	His	Arg												
145															



<210> 2727  
 <211> 1119  
 <212> DNA  
 <213> Homo sapiens

<400> 2727  
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 120  
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 180  
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 catgatgcct ttctagagaa agaaaaattg caggctacag gaaaatgata aaaactactg  
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 1119

<210> 2728  
 <211> 221  
 <212> PRT  
 <213> Homo sapiens

<400> 2728  
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 Ile Thr Thr Leu Asp Pro Gly Met Ala Pro Tyr Ile Lys Ser Gly Gly

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      20      25      30
Glu Leu Asp Ile Val Val Thr Ser Asn Lys Glu Val Lys Val Ala Ala
      35      40      45
Val Arg Asp Ala Phe Gln Glu Val Phe Gly Leu Ala Val Val Val Gly
      50      55      60
Glu Ala Gly Gln Ser Asn Ile Ala Pro Gln Pro Val Gly Tyr Ala Ala
      65      70      75      80
Gly Leu Lys Gly Ala Gln Glu Arg Ile Asp Ser Leu Arg Arg Thr Gly
      85      90      95
Val Ile His Glu Lys Gln Thr Ala Val Ser Val Glu Asn Phe Ile Ala
      100      105      110
Glu Leu Leu Pro Asp Lys Trp Phe Asp Ile Gly Cys Leu Val Val Glu
      115      120      125
Asp Pro Val His Gly Ile His Leu Glu Thr Phe Thr Gln Ala Thr Pro
      130      135      140
Val Pro Leu Glu Phe Val Gln Gln Ala Gln Ser Leu Thr Pro Gln Asp
      145      150      155      160
Tyr Asn Leu Arg Trp Ser Gly Leu Leu Val Thr Val Gly Glu Val Leu
      165      170      175
Glu Lys Ser Leu Leu Asn Val Ser Arg Thr Asp Trp His Met Ala Phe
      180      185      190
Thr Gly Met Ser Arg Arg Gln Met Ile Tyr Ser Ala Ala Arg Ala Ile
      195      200      205
Ala Gly Met Tyr Lys Gln Arg Leu Pro Pro Arg Thr Val
      210      215      220

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&lt;210&gt; 2729

&lt;211&gt; 393

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2729

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120
agctgctctg ccacgagatc ttctgagaag cacgtgaatt ctgctgactc tccacctcc
180
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240
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300
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393

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&lt;210&gt; 2730

&lt;211&gt; 92

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2730

```

Val Ser Cys Ser Ala Thr Arg Ser Ser Glu Lys His Val Asn Ser Ala

```

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      1             5             10             15
Asp Ser Pro Pro Ser Ser Ser Ser Ser Ser Ile Leu Arg Ala Trp
      20             25             30
Leu Asp Gln Cys Ala Glu Asp Phe Arg Glu Pro Pro His Phe Pro Cys
      35             40             45
Leu Gln Lys Leu Leu Asp Tyr Leu Thr Arg Met Met Pro Gly Ser Asp
      50             55             60
Pro Glu Arg Arg Ala Gln Asn Leu Leu Glu Gln Phe Gln Lys Gln Glu
      65             70             75             80
Val Glu Thr Asp Asn Gly Leu Pro Asn Thr Ile Ser
      85             90

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&lt;210&gt; 2731

&lt;211&gt; 447

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2731

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180
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300
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420
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447

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&lt;210&gt; 2732

&lt;211&gt; 125

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2732

```

Ala Asp Gln Pro Ala Ser Gln Ala His Gln Trp Arg His Arg Gly Leu
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Ile Gly Val Thr Cys Val Phe Pro Ile Asp Leu Ala Lys Thr Arg Leu
      20             25             30
Gln Asn Gln Gln Asn Gly Gln Arg Val Tyr Thr Ser Met Ser Asp Cys
      35             40             45
Leu Ile Lys Thr Val Arg Ser Glu Gly Tyr Phe Gly Met Tyr Arg Gly
      50             55             60
Ala Ala Val Asn Leu Thr Leu Val Thr Pro Glu Lys Ala Ile Lys Leu
      65             70             75             80
Ala Ala Asn Asp Phe Phe Arg His Gln Leu Ser Lys Asp Gly Gln Lys
      85             90             95
Leu Thr Leu Leu Lys Glu Met Leu Ala Gly Cys Gly Ala Gly Thr Cys

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<210> 2733  
 <211> 3619  
 <212> DNA  
 <213> Homo sapiens

<400> 2733  
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 120  
 cccagcacc catgtcacc ccaacagctg gactgcccgc tggccatgga gcggatcaag  
 180  
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 240  
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&lt;210&gt; 2734

&lt;211&gt; 790

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2734

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Gly	Asn	Leu	Asn	Arg	Cys	Ile	Ala	Asp	Val	Val	Ser	Leu	Phe	Ile	Thr
			20					25					30		
Val	Met	Asp	Lys	Leu	Arg	Leu	Ala	Glu	Leu	Thr	Val	Asp	Glu	Phe	Leu
		35					40					45			
Ala	Ser	Gly	Phe	Asp	Ser	Glu	Ser	Glu	Ser	Glu	Ser	Glu	Asn	Ser	Pro
	50					55				60					
Gln	Ala	Glu	Thr	Arg	Glu	Ala	Arg	Glu	Ala	Ala	Arg	Ser	Pro	Asp	Lys
65				70				75						80	
Pro	Gly	Gly	Ser	Pro	Ser	Ala	Ser	Arg	Arg	Lys	Gly	Arg	Ala	Ser	Glu
			85					90						95	
His	Lys	Asp	Gln	Leu	Ser	Arg	Leu	Lys	Asp	Arg	Asp	Pro	Glu	Phe	Tyr
			100					105					110		
Lys	Phe	Leu	Gln	Glu	Asn	Asp	Gln	Ser	Leu	Leu	Asn	Phe	Ser	Asp	Ser
		115					120					125			
Asp	Ser	Ser	Glu	Glu	Glu	Glu	Gly	Pro	Phe	His	Ser	Leu	Pro	Asp	Val
	130					135					140				
Leu	Glu	Glu	Ala	Ser	Glu	Glu	Glu	Asp	Gly	Ala	Glu	Glu	Gly	Glu	Asp
145				150					155					160	
Gly	Asp	Arg	Val	Pro	Arg	Gly	Leu	Lys	Gly	Lys	Lys	Asn	Ser	Val	Pro
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Val	Thr	Val	Ala	Met	Val	Glu	Arg	Trp	Lys	Gln	Ala	Ala	Lys	Gln	Arg

										180				185				190			
Leu	Thr	Pro	Lys	Leu	Phe	His	Glu	Val	Val	Gln	Ala	Phe	Arg	Ala	Ala						
			195				200			205											
Val	Ala	Thr	Thr	Arg	Gly	Asp	Gln	Glu	Ser	Ala	Glu	Ala	Asn	Lys	Phe						
			210	215			220														
Gln	Val	Thr	Asp	Ser	Ala	Ala	Phe	Asn	Ala	Leu	Val	Thr	Phe	Cys	Ile						
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Lys	Asp	Ser	Ser	Arg	Met	Leu	Gln	Pro	Ser	Ser	Ser	Pro	Leu	Trp	Gly						
			260			265			270												
Lys	Leu	Arg	Val	Asp	Ile	Lys	Ala	Tyr	Leu	Gly	Ser	Ala	Ile	Gln	Leu						
			275			280			285												
Val	Ser	Cys	Leu	Ser	Glu	Thr	Thr	Val	Leu	Ala	Ala	Val	Leu	Arg	His						
			290			295			300												
Ile	Ser	Val	Leu	Val	Pro	Cys	Phe	Leu	Thr	Phe	Pro	Lys	Gln	Cys	Arg						
305					310			315							320						
Met	Leu	Leu	Lys	Arg	Met	Val	Val	Val	Trp	Ser	Thr	Gly	Glu	Glu	Ser						
			325			330							335								
Leu	Arg	Val	Leu	Ala	Phe	Leu	Val	Leu	Ser	Arg	Val	Cys	Arg	His	Lys						
			340			345			350												
Lys	Asp	Thr	Phe	Leu	Gly	Pro	Val	Leu	Lys	Gln	Met	Tyr	Ile	Thr	Tyr						
			355			360			365												
Val	Arg	Asn	Cys	Lys	Phe	Thr	Ser	Pro	Gly	Ala	Leu	Pro	Phe	Ile	Ser						
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Arg	Asn	Ala	Met	Thr	Thr	Arg	Lys	Lys	Glu	Thr	Tyr	Gln	Ser	Val	Tyr						
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Pro	Val	Val	Leu	Gln	Leu	Lys	Ser	Phe	Leu												

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Glu Gln Gln Ala Val	Glu Ala Trp Glu Lys Leu Thr Arg Glu Glu Gly	
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	645	650
Glu Ile Gln Leu Glu Ile Ser Gly Lys Glu Arg Val Arg Leu Gly Glu		655
	660	665
Gly Thr Trp Leu Glu Asp Leu Asn Phe Pro Glu Ile Lys Arg Arg Lys		670
	675	680
Met Ala Asp Arg Lys Asp Glu Asp Arg Lys Gln Phe Lys Asp Leu Phe		685
	690	695
Asp Leu Asn Ser Ser Glu Glu Asp Asp Thr Glu Gly Phe Leu Glu Arg		700
705	710	715
Gly Ile Leu Gly Pro Leu Ser Thr Arg His Gly Val Glu Asp Asp Glu		720
	725	730
Glu Asp Glu Glu Glu Gly Glu Glu Asp Ser Ser Asn Ser Glu Gly Glu		735
	740	745
Trp Ser Trp Asp Gly Asp Pro Asp Ala Glu Ala Gly Leu Ala Pro Gly		750
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Glu Leu Gln Gln Leu Ala Gln Gly Pro Glu Asp Glu Leu Glu Asp Leu		765
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Gln Leu Ser Glu Asp Asp		780
785	790	

&lt;210&gt; 2735

&lt;211&gt; 1666

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2735

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1140  
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1380  
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1666

&lt;210&gt; 2736

&lt;211&gt; 218

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2736

Met	Ala	Lys	Gln	Tyr	Asp	Val	Leu	Phe	Arg	Leu	Leu	Leu	Ile	Gly	Asp
1				5					10					15	
Ser	Gly	Val	Gly	Lys	Thr	Cys	Leu	Leu	Cys	Arg	Phe	Thr	Asp	Asn	Glu
		20						25					30		
Phe	His	Ser	Ser	His	Ile	Ser	Thr	Ile	Gly	Val	Asp	Phe	Lys	Met	Lys
		35					40					45			
Thr	Ile	Glu	Val	Asp	Gly	Ile	Lys	Val	Arg	Ile	Gln	Ile	Trp	Asp	Thr
	50					55					60				
Ala	Gly	Gln	Glu	Arg	Tyr	Gln	Thr	Ile	Thr	Lys	Gln	Tyr	Tyr	Arg	Arg
65				70					75					80	
Ala	Gln	Gly	Ile	Phe	Leu	Val	Tyr	Asp	Ile	Ser	Ser	Glu	Arg	Ser	Tyr
			85					90						95	
Gln	His	Ile	Met	Lys	Trp	Val	Ser	Asp	Val	Asp	Glu	Tyr	Ala	Pro	Glu
			100					105					110		
Gly	Val	Gln	Lys	Ile	Leu	Ile	Gly	Asn	Lys	Ala	Asp	Glu	Glu	Gln	Lys

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<210> 2738
<211> 299
<212> PRT
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&lt;213&gt; Homo sapiens

&lt;400&gt; 2738

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His Arg Ile Arg Arg Ala Glu Glu His Ala Glu Glu Leu Arg Asn Lys
 20      25      30
Ile Val Asp Gln Cys Glu Arg Leu Gln Leu Gln Ser Ala Ala Ile Thr
 35      40      45
Lys Tyr Val Ala Asp Val Leu Pro Gly Lys Asn Gln Arg Ala Val Ser
 50      55      60
Met Ala Ser Ala Ala Arg Glu Leu Val Ile Gln Arg Leu Ser Leu Val
 65      70      75      80
Arg Ser Leu Cys Glu Ser Glu Glu Gln Arg Leu Leu Glu Gln Val His
 85      90      95
Gly Glu Glu Glu Arg Ala His Gln Ser Ile Leu Thr Gln Arg Val His
100     105     110
Trp Ala Glu Ala Leu Gln Lys Leu Asp Thr Ile Arg Thr Gly Leu Val
115     120     125
Gly Met Leu Thr His Leu Asp Asp Leu Gln Leu Ile Gln Lys Glu Gln
130     135     140
Glu Ile Phe Glu Arg Thr Glu Glu Ala Glu Gly Ile Leu Asp Pro Gln
145     150     155     160
Glu Ser Glu Met Leu Asn Phe Asn Glu Lys Cys Thr Arg Ser Pro Leu
165     170     175
Leu Thr Gln Leu Trp Ala Thr Ala Val Leu Gly Ser Leu Ser Gly Thr
180     185     190
Glu Asp Ile Arg Ile Asp Glu Arg Thr Val Ser Pro Phe Leu Gln Leu
195     200     205
Ser Asp Asp Arg Lys Thr Leu Thr Ser Ala Pro Arg Ser Gln Arg Cys
210     215     220
Ala Asp Gly Pro Glu Arg Phe Asp His Trp Pro Asn Ala Leu Ala Ala
225     230     235     240
Thr Ser Phe Gln Asn Gly Leu His Ala Trp Met Val Asn Val Gln Asn
245     250     255
Ser Cys Ala Tyr Lys Val Gly Val Ala Ser Gly His Leu Pro Arg Lys
260     265     270
Gly Ser Gly Ser Asp Cys Arg Leu Gly His Asn Ala Phe Ser Trp Val
275     280     285
Phe Ser Arg Tyr Asp Gln Glu Phe Arg Phe Ser
290     295

```

&lt;210&gt; 2739

&lt;211&gt; 1501

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2739

```

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60
gccgaggaca agagcatccg gctcggett gttctcatca tctccggcgt cgtgtcgctc
120
ttcatcttcg gcttctgctg gctgagtcgc gcgctgcagg atctgcaagc cacggaggcc
180

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ggcgccgact gcaggggcac ctgcagtag cctgcgtcc aggtctacgt gaacaactct  
300  
gagccaact ctaggcgct gctgcacagc gacgagcacc agctcctgac caacccaag  
360  
tgctcctata tccctccctg taagagagaa aatcagaaga atttggaaag tgtcatgaat  
420  
tggcaacagt actggaaga tgagattggt tccagccat ttacttgcta ttttaatcaa  
480  
catcaaagac cagatgatgt gcttctgcat cgcactcatg atgagattgt cctcctgcat  
540  
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600  
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660  
ggaaggaggc ttgtagaaag caaagtacag aagctgtact catcggcacg cgtccacctg  
720  
cggaacctgt gtttctctgc gcaggagatg gacagggcca cgacagggct ctgagaggct  
780  
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900  
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960  
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1320  
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1501

<210> 2740

<211> 218

<212> PRT

<213> Homo sapiens

<400> 2740

Glu Ser Arg Arg Glu Trp Gly Ala Met Ala Lys Leu Arg Val Ala Tyr

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Glu Tyr Thr Glu Ala Glu Asp Lys Ser Ile Arg Leu Gly Leu Phe Leu
      20           25           30
Ile Ile Ser Gly Val Val Ser Leu Phe Ile Phe Gly Phe Cys Trp Leu
      35           40           45
Ser Pro Ala Leu Gln Asp Leu Gln Ala Thr Glu Ala Asn Cys Thr Val
      50           55           60
Leu Ser Val Gln Gln Ile Gly Glu Val Phe Glu Cys Thr Phe Thr Cys
      65           70           75           80
Gly Ala Asp Cys Arg Gly Thr Ser Gln Tyr Pro Cys Val Gln Val Tyr
      85           90           95
Val Asn Asn Ser Glu Ser Asn Ser Arg Ala Leu Leu His Ser Asp Glu
      100          105          110
His Gln Leu Leu Thr Asn Pro Lys Cys Ser Tyr Ile Pro Pro Cys Lys
      115          120          125
Arg Glu Asn Gln Lys Asn Leu Glu Ser Val Met Asn Trp Gln Gln Tyr
      130          135          140
Trp Lys Asp Glu Ile Gly Ser Gln Pro Phe Thr Cys Tyr Phe Asn Gln
      145          150          155          160
His Gln Arg Pro Asp Asp Val Leu Leu His Arg Thr His Asp Glu Ile
      165          170          175
Val Leu Leu His Cys Phe Leu Trp Pro Leu Val Thr Phe Val Val Gly
      180          185          190
Val Leu Ile Val Val Leu Thr Ile Cys Ala Lys Ser Leu Ala Val Lys
      195          200          205
Ala Glu Ala Met Lys Lys Arg Lys Phe Ser
      210          215

```

&lt;210&gt; 2741

&lt;211&gt; 1487

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2741

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120
tctacaagg actggtctca gaacatgtat ttcaactgct cagaagacaa cccagtcga
180
gagcgctgct ctgtgcctta ctctgttgc ttgcctactc ctgaccaggc agtgatcaac
240
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300
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420
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480
ccatggtact gagaatccat cctgcacctc ctccaccatgg aaactggcaa gcctcataaa
540
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600

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 720  
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 780  
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 840  
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 1200  
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 1440  
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 1487

&lt;210&gt; 2742

&lt;211&gt; 163

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2742

Lys Ala Arg Gly Lys Val Ser Glu Ile Ile Asn Asn Ala Ile Val His  
 1 5 10 15  
 Tyr Arg Asp Asp Leu Asp Leu Gln Asn Leu Ile Asp Phe Gly Gln Lys  
 20 25 30  
 Lys Phe Ser Cys Cys Gly Gly Ile Ser Tyr Lys Asp Trp Ser Gln Asn  
 35 40 45  
 Met Tyr Phe Asn Cys Ser Glu Asp Asn Pro Ser Arg Glu Arg Cys Ser  
 50 55 60  
 Val Pro Tyr Ser Cys Cys Leu Pro Thr Pro Asp Gln Ala Val Ile Asn  
 65 70 75 80  
 Thr Met Cys Gly Gln Gly Met Gln Ala Phe Asp Tyr Leu Glu Ala Ser  
 85 90 95  
 Lys Val Ile Tyr Thr Asn Gly Cys Ile Asp Lys Leu Val Asn Trp Ile  
 100 105 110  
 His Ser Asn Leu Phe Leu Leu Gly Gly Val Ala Leu Gly Leu Ala Ile  
 115 120 125  
 Pro Gln Leu Val Gly Ile Leu Leu Ser Gln Ile Leu Val Asn Gln Ile

130                      135                      140  
 Lys Asp Gln Ile Lys Leu Gln Leu Tyr Asn Gln Gln His Arg Ala Asp  
 145                      150                      155                      160  
 Pro Trp Tyr

<210> 2743  
 <211> 384  
 <212> DNA  
 <213> Homo sapiens

<400> 2743  
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 180  
 ccatctccgc ccagagccta ccaagactga ggtgtccagt ctccacctgg agcctcccca  
 240  
 gactggagtg gcccatctct acctggagcc tcttgggact ggagtgtctc atctctgccc  
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 384

<210> 2744  
 <211> 69  
 <212> PRT  
 <213> Homo sapiens

<400> 2744  
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 20                      25                      30  
 Asp Trp Ser Val Pro Ser Pro Pro Thr Ala Ser Gln Asp Ser Gly Val  
 35                      40                      45  
 Gln Ser Pro Pro Gly Ala Ser Arg Asp Trp Ser Val Pro Ser Pro Pro  
 50                      55                      60  
 Arg Ala Tyr Gln Asp  
 65

<210> 2745  
 <211> 769  
 <212> DNA  
 <213> Homo sapiens

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 120

agtatcacct gagaaaatta ggcattcccc tcttggaac acgtctctgt gagtttgcac  
 180  
 ttcatttggc ttggagccct ggctcgatgc ctcattggatc tttctcccca aggaggggacg  
 240  
 tcttgagggg tccgagcctc aggccaagga cccctgatgc agactctgga atccctggcc  
 300  
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 360  
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 420  
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 480  
 gggggcacct gctctccctg atagatgctg agagcatcca gaaacttcca gaccagccct  
 540  
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 600  
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<210> 2746

<211> 98

<212> PRT

<213> Homo sapiens

<400> 2746

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Lys	Leu	Pro	Asp	Gln	Pro	Ser	His	His	Thr	Gln	Lys	Arg	Pro	Phe	Pro
		20					25						30		
Ser	Gly	Glu	Lys	Leu	Pro	Asp	Gln	Pro	Phe	Thr	His	His	Ser	Gln	Glu
		35				40					45				
Gly	Pro	Phe	Pro	Pro	Gly	Arg	Glu	Thr	Ser	Arg	Pro	Ala	Pro	His	Thr
	50				55				60						
Thr	Ala	Lys	Arg	Gly	Leu	Ser	His	Leu	Glu	Arg	Asn	Phe	Gln	Thr	Ser
65				70				75					80		
Pro	Ser	His	His	Ser	Gln	Glu	Gly	Pro	Phe	Pro	Pro	Gly	Glu	Lys	Leu
			85					90					95		
Pro	Asp														

<210> 2747

<211> 1100

<212> DNA

<213> Homo sapiens

<400> 2747

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 120



agggccccgg cagggttcgcc caagggctgc ttcgcttgcg tgtccaagcc ccctgccctg  
 180  
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 240  
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 300  
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 360  
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 420  
 ctcaacttct gctgcctggg cttcatcgcc ttggcctact ccctcaaagt gcgagacaag  
 480  
 aagctttctca atgacctgaa tggagccgtg gaggatgcaa agacggccccg gctgttcaac  
 540  
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 600  
 cccctaccg actactaagg cccgccaggc acggctgctg gcggagacaa gcactgagac  
 660  
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 720  
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 780  
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 840  
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<210> 2748

<211> 205

<212> PRT

<213> Homo sapiens

<400> 2748

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Glu	Pro	Arg	Pro	Ala	Pro	Arg	Thr	Ala	Pro	Arg	Lys	Pro	Glu	Ser	Pro
			20					25				30			
Trp	Thr	Gly	Ala	Phe	Trp	Ile	Pro	Arg	Pro	Pro	Ala	Gly	Ser	Pro	Lys
		35				40					45				
Gly	Cys	Phe	Ala	Cys	Val	Ser	Lys	Pro	Pro	Ala	Leu	Gln	Ala	Pro	Ala
	50					55				60					
Ala	Pro	Ala	Pro	Glu	Pro	Ser	Ala	Ser	Pro	Pro	Met	Ala	Pro	Thr	Leu
65				70				75				80			
Phe	Pro	Met	Glu	Ser	Lys	Ser	Ser	Lys	Thr	Asp	Ser	Val	Arg	Ala	Ala
			85					90				95			
Gly	Ala	Pro	Pro	Ala	Cys	Lys	His	Leu	Ala	Glu	Lys	Lys	Thr	Met	Thr

100	105	110
Asn Pro Thr Thr Val Ile Glu Val Tyr Pro Asp Thr Thr Glu Val Asn		
115	120	125
Asp Tyr Tyr Leu Trp Ser Ile Phe Asn Phe Val Tyr Leu Asn Phe Cys		
130	135	140
Cys Leu Gly Phe Ile Ala Leu Ala Tyr Ser Leu Lys Val Arg Asp Lys		
145	150	155
Lys Leu Leu Asn Asp Leu Asn Gly Ala Val Glu Asp Ala Lys Thr Ala		
165	170	175
Arg Leu Phe Asn Ile Thr Ser Ser Ala Leu Ala Ala Ser Cys Ile Ile		
180	185	190
Leu Val Phe Ile Phe Leu Arg Tyr Pro Leu Thr Asp Tyr		
195	200	205

&lt;210&gt; 2749

&lt;211&gt; 2050

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2749

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180
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780
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900
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960
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1020

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 1140  
 ggcggccacc agaaggctgt tgtctgcctg gccttcaatg acagtgtgct gggctagcct  
 1200  
 gtgacccctc gggactgcct ggtgcagggtg gtggcagctg gagggaccca tgcagcacc  
 1260  
 aggtcagagc agaccctccc ctgccggcct gcgccagctg gacctgatgg cccctgtgg  
 1320  
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 1380  
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 1440  
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&lt;210&gt; 2752

&lt;211&gt; 87

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2752

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 Pro Pro Pro Thr Thr Arg Thr Val Ala Ser Ser Gly Thr His Thr Ser  
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&lt;213&gt; Homo sapiens

&lt;400&gt; 2753

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&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2754

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65           70           75           80
Gly Phe Val Phe Thr Ala Arg Thr Pro Phe Ser Val Ile Ile Glu Ala
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Met Gly Gln Glu Gln Thr Phe Gly Ile Leu Asn Val Leu Glu Phe Ser
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Leu Arg Leu Tyr Cys Lys Gly Ala Asp Asn Val Ile Phe Glu Arg Leu
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Ser Lys Asp Ser Lys Tyr Met Glu Glu Thr Leu Cys His Leu Glu Tyr
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Phe Ala Thr Glu Gly Leu Arg Thr Leu Cys Val Ala Tyr Ala Asp Leu
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      180          185          190
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Asn Ile Gly Tyr Ser Cys Arg Leu Val Ser Gln Asn Met Ala Leu Ile
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Leu Leu Lys Gly Asp Ser Leu Asp Ala Thr Arg Ala Ala Ile Thr Gln
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&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

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4680  
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&lt;210&gt; 2756

&lt;211&gt; 550

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

<400> 2756  
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 Phe Ala Glu Thr Met Glu Leu His Thr Phe Leu Thr Lys Ile Lys Ser  
 35 40 45  
 Ala Lys Glu Asn Leu Lys Lys Ile Gln Glu Met Glu Lys Ser Asp Glu  
 50 55 60  
 Ser Ser Thr Asp Leu Glu Glu Leu Lys Asn Ala Asp Trp Ala Arg Phe  
 65 70 75 80  
 Trp Val Gln Val Met Arg Asp Leu Arg Asn Gly Val Lys Leu Lys Lys  
 85 90 95  
 Val Gln Glu Arg Gln Tyr Asn Pro Leu Pro Ile Glu Tyr Gln Leu Thr  
 100 105 110  
 Pro Tyr Glu Met Leu Met Asp Asp Ile Arg Cys Lys Arg Tyr Thr Leu  
 115 120 125  
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 130 135 140  
 Ala His Glu Ile Ile Leu Asp Phe Ile Arg Ser Arg Pro Pro Leu Asn  
 145 150 155 160  
 Pro Val Ser Ala Arg Lys Leu Lys Pro Thr Pro Pro Arg Pro Arg Ser  
 165 170 175  
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 180 185 190  
 Pro Val Ser Pro Glu Glu Ile Arg Arg Ser Arg Leu Asp Val Thr Thr  
 195 200 205  
 Pro Glu Ser Thr Lys Asn Leu Val Glu Ser Ser Met Val Asn Gly Gly  
 210 215 220  
 Leu Thr Ser Gln Thr Lys Glu Asn Gly Leu Ser Thr Ser Gln Gln Val  
 225 230 235 240  
 Pro Ala Gln Arg Lys Lys Leu Leu Arg Ala Pro Thr Leu Ala Glu Leu  
 245 250 255  
 Asp Ser Ser Glu Ser Glu Glu Glu Thr Leu His Lys Ser Thr Ser Ser  
 260 265 270  
 Ser Ser Val Ser Pro Ser Phe Pro Glu Glu Pro Val Leu Glu Ala Val  
 275 280 285  
 Ser Thr Arg Lys Lys Pro Pro Lys Phe Leu Pro Ile Ser Ser Thr Pro  
 290 295 300  
 Gln Pro Glu Arg Arg Gln Pro Pro Gln Arg Arg His Ser Ile Glu Lys  
 305 310 315 320  
 Glu Thr Pro Thr Asn Val Arg Gln Phe Leu Pro Pro Ser Arg Gln Ser  
 325 330 335  
 Ser Arg Ser Leu Glu Glu Phe Cys Tyr Pro Val Glu Cys Leu Ala Leu  
 340 345 350  
 Thr Val Glu Glu Val Met His Ile Arg Gln Val Leu Val Lys Ala Glu  
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 370 375 380  
 Gly Lys Leu Cys Phe Cys Cys Arg Thr Arg Arg Phe Ser Phe Phe Thr  
 385 390 395 400  
 Trp Ser Tyr Thr Cys Gln Phe Cys Lys Arg Pro Val Cys Ser Gln Cys  
 405 410 415  
 Cys Lys Lys Met Arg Leu Pro Ser Lys Pro Tyr Ser Thr Leu Pro Ile

420 425 430  
 Phe Ser Leu Gly Pro Ser Ala Leu Gln Arg Gly Glu Ser Ser Met Arg  
 435 440 445  
 Ser Glu Lys Pro Ser Thr Ala His His Arg Pro Leu Arg Ser Ile Ala  
 450 455 460  
 Arg Phe Ser Ser Lys Ser Lys Ser Met Asp Lys Ser Asp Glu Glu Leu  
 465 470 475 480  
 Gln Phe Pro Lys Glu Leu Met Glu Asp Trp Ser Thr Met Glu Val Cys  
 485 490 495  
 Val Asp Cys Lys Lys Phe Ile Ser Glu Ile Ile Ser Ser Ser Arg Arg  
 500 505 510  
 Ser Leu Val Leu Ala Asn Lys Arg Ala Arg Leu Lys Arg Lys Thr Gln  
 515 520 525  
 Ser Phe Tyr Met Ser Ser Pro Gly Pro Ser Glu Tyr Cys Pro Ser Glu  
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 Arg Thr Ile Ser Glu Ile  
 545 550

&lt;210&gt; 2757

&lt;211&gt; 449

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2757

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 240  
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 449

&lt;210&gt; 2758

&lt;211&gt; 82

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2758

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 Gln Asp His Ser Ser Leu Asn Pro Gln Lys Trp His Cys Val Asp Cys  
 20 25 30  
 Asn Thr Thr Glu Ser Ile Trp Ala Cys Leu Ser Cys Ser His Val Ala  
 35 40 45  
 Cys Gly Arg Tyr Ile Glu Glu His Ala Leu Lys His Phe Gln Glu Ser

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 Ser His Pro Val Ala Leu Glu Val Asn Glu Met Tyr Val Phe Cys Tyr  
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 Leu Cys

<210> 2759  
 <211> 688  
 <212> DNA  
 <213> Homo sapiens

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 240  
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<210> 2760  
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 <212> PRT  
 <213> Homo sapiens

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 20                      25                      30  
 Arg Pro Glu Pro Gln Arg Pro Arg Asn Arg Pro Tyr Phe Gln Arg Arg  
 35                      40                      45  
 Arg Gln Gln Ala Pro Gly Pro Gln Gln Ala Pro Gly Pro Arg Gln Pro  
 50                      55                      60  
 Ala Ala Pro Glu Thr Ser Ala Pro Val Asn Ser Gly Asp Pro Thr Thr  
 65                      70                      75                      80  
 Thr Ile Leu Glu

<210> 2761  
 <211> 922  
 <212> DNA  
 <213> Homo sapiens

<400> 2761  
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 120  
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 180  
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<210> 2762  
 <211> 307  
 <212> PRT  
 <213> Homo sapiens

<400> 2762  
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 20 25 30  
 Ser Ser Leu Ser Gln Ala Gly Asp Pro Ile Thr Glu Gly Asn Lys Glu  
 35 40 45  
 Pro Asp Lys Thr Trp Val Lys Lys Gly Glu Pro Leu Pro Val Lys Leu



50                      55                      60  
 Asn Ser Ser Thr Glu Ala Asn Val Ile Lys Glu Ala Leu Asp Ser Ser  
 65                      70                      75                      80  
 Leu Glu Ser Thr Leu Asp Asn Ser Cys Gln Gly Ala Gln Met Asp Asn  
                     85                      90                      95  
 Lys Ser Glu Val Gln Leu Trp Leu Leu Lys Arg Ile Gln Val Pro Ile  
                     100                      105                      110  
 Glu Asp Ile Leu Pro Ser Lys Glu Glu Lys Ser Lys Thr Pro Pro Met  
                     115                      120                      125  
 Phe Leu Cys Ile Lys Val Gly Lys Pro Met Arg Lys Ser Phe Ala Thr  
                     130                      135                      140  
 His Thr Ala Ala Met Val Gln Gln Tyr Gly Lys Arg Arg Lys Gln Pro  
 145                      150                      155                      160  
 Glu Tyr Trp Phe Ala Val Pro Arg Glu Arg Val Asp His Leu Tyr Thr  
                     165                      170                      175  
 Phe Phe Val Gln Trp Ser Pro Asp Val Tyr Gly Lys Asp Ala Lys Glu  
                     180                      185                      190  
 Gln Gly Phe Val Val Val Glu Lys Glu Glu Leu Asn Met Ile Asp Asn  
                     195                      200                      205  
 Phe Phe Ser Glu Pro Thr Thr Lys Ser Trp Glu Ile Ile Thr Val Glu  
                     210                      215                      220  
 Glu Ala Lys Arg Arg Lys Ser Thr Cys Ser Tyr Tyr Glu Asp Glu Asp  
 225                      230                      235                      240  
 Glu Glu Val Leu Pro Val Leu Arg Pro Pro Arg Ala Phe Trp Glu Asn  
                     245                      250                      255  
 Lys Pro Leu Asn Arg Trp Ala Arg Pro Phe Pro Ala Arg Val Gln Gly  
                     260                      265                      270  
 Tyr Pro Trp Arg Leu Ala Tyr Ser Thr Leu Glu His Gly Thr Ser Leu  
                     275                      280                      285  
 Lys Thr Leu Tyr Arg Lys Ser Ala Ser Leu Asp Ser Pro Val Leu Leu  
                     290                      295                      300  
 Val Ile Lys  
 305

&lt;210&gt; 2763

&lt;211&gt; 2210

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2763

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 180  
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 240  
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 300  
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 360  
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 420

gaaatcctcc tggattcaat gacaacacat caatggccgg gcacaggggt ggattccttt  
480  
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720  
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1080  
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1260  
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1920  
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2040

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<210> 2764

<211> 423

<212> PRT

<213> Homo sapiens

<400> 2764

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Val	Ala	Ser	Gly	Pro	Val	Val	Gly	Gly	Arg	Lys	Lys	Val	Arg	Gly	Pro
		35					40					45			
Glu	Gln	Ile	Lys	Gln	Glu	Val	Glu	Ser	Glu	Glu	Glu	Lys	Pro	Asp	Arg
		50				55					60				
Met	Asp	Ile	Asp	Ser	Glu	Asp	Thr	Asp	Ser	Asn	Thr	Ser	Leu	Gln	Thr
65					70					75				80	
Arg	Ala	Arg	Glu	Lys	Arg	Lys	Pro	Gln	Leu	Glu	Lys	Asp	Thr	Lys	Pro
				85					90					95	
Lys	Glu	Pro	Arg	Tyr	Thr	Pro	Val	Ser	Ile	Tyr	Glu	Glu	Lys	Leu	Leu
		100						105					110		
Leu	Lys	Arg	Leu	Glu	Ala	Cys	Pro	Gly	Ala	Val	Ala	Met	Thr	Pro	Glu
		115					120					125			
Ala	Arg	Arg	Leu	Lys	Arg	Lys	Leu	Ile	Val	Arg	Gln	Ala	Lys	Arg	Asp
		130				135					140				
Arg	Gly	Leu	Pro	Leu	Phe	Asp	Leu	Asp	Gln	Val	Val	Asn	Ala	Ala	Leu
145					150					155				160	
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			165					170						175	
Leu	Pro	Ala	Gly	Gln	Ala	Thr	Tyr	Arg	Thr	Thr	Cys	Gln	Asp	Phe	Arg
		180						185					190		
Ile	Leu	Asp	Arg	Tyr	Gln	Thr	Ser	Leu	Pro	Ser	Arg	Lys	Gly	Phe	Arg
		195					200					205			
His	Gln	Thr	Thr	Lys	Phe	Leu	Tyr	Arg	Leu	Val	Gly	Ser	Glu	Asp	Met
		210				215					220				
Ala	Val	Asp	Gln	Ser	Ile	Val	Ser	Pro	Tyr	Thr	Ser	Arg	Ile	Leu	Lys
225					230					235				240	
Pro	Tyr	Ile	Arg	Arg	Asp	Tyr	Glu	Thr	Lys	Pro	Pro	Lys	Leu	Gln	Leu
			245						250					255	
Leu	Ser	Gln	Ile	Arg	Ser	His	Leu	His	Arg	Ser	Asp	Pro	His	Trp	Thr
		260					265						270		
Pro	Glu	Pro	Asp	Ala	Pro	Leu	Asp	Tyr	Cys	Tyr	Val	Arg	Pro	Asn	His
		275					280					285			
Ile	Pro	Thr	Ile	Asn	Ser	Met	Cys	Gln	Glu	Phe	Phe	Trp	Pro	Gly	Ile
		290				295					300				
Asp	Leu	Ser	Glu	Cys	Leu	Gln	Tyr	Pro	Asp	Phe	Ser	Val	Val	Val	Leu
305					310					315				320	
Tyr	Lys	Lys	Val	Ile	Ile	Ala	Phe	Gly	Phe	Met	Val	Pro	Asp	Val	Lys

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Tyr Asn Glu Ala Tyr Ile Ser Phe Leu Phe Val His Pro Glu Trp Arg
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Arg Ala Gly Ile Ala Thr Phe Met Ile Tyr His Leu Ile Gln Thr Cys
          355          360          365
Met Gly Lys Asp Val Thr Leu His Val Ser Ala Ser Asn Pro Ala Met
          370          375          380
Leu Leu Tyr Gln Lys Phe Gly Phe Lys Thr Glu Glu Tyr Val Leu Asp
          385          390          395          400
Phe Tyr Asp Lys Tyr Tyr Pro Leu Glu Ser Thr Glu Cys Lys His Ala
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Phe Phe Leu Arg Leu Arg Arg
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<210> 2765  
 <211> 582  
 <212> DNA  
 <213> Homo sapiens

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<400> 2765
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582

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<210> 2766  
 <211> 100  
 <212> PRT  
 <213> Homo sapiens

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20          25          30
Ala Arg Ser Leu Cys Ser Ala Gly Thr Gln Pro Ala Pro Ser Thr Thr
35          40          45
Ser Leu Pro Ser Trp Arg Ser Ala Ala Pro Leu Ala Trp Pro Leu Gln

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50		55		60
Leu Ser Gly Gln Trp Trp Ser Ala Gly Ala Cys Phe Leu Asp Leu Pro				
65	70	75	80	
Ser Leu Ala Leu Cys Trp Pro Gly Asp Ser Gly Asp Ala Glu Trp Pro				
	85	90	95	
Glu Ala Gly Ser				
100				

&lt;210&gt; 2767

&lt;211&gt; 1202

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2767

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1200

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ag  
1202

<210> 2768  
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<212> PRT  
<213> Homo sapiens

<400> 2768  
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Ser Gly Lys Ser Gln Asp Phe Thr Arg Asp His Val Pro Arg Gly Val  
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Arg Lys Glu Ser Gln Leu Ala Gly Arg Ile Val Gln Glu Asn Gly Cys  
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Glu Thr His Asn Gln Thr Ala Arg Gly Phe Cys Leu Arg Pro His Ala  
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<210> 2769  
<211> 1286  
<212> DNA  
<213> Homo sapiens

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<211> 228

<212> PRT

<213> Homo sapiens

<400> 2770

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			20					25					30		
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  65              70              75              80
Thr Arg Ala Gln Leu Met Asn Cys His Val Ser Ala Gly Thr Arg His
      85              90              95
Lys Val Leu Leu Arg Arg Leu Leu Ala Ser Phe Phe Asp Arg Asn Thr
      100              105              110
Leu Ala Asn Ser Cys Gly Thr Gly Ile Arg Ser Ser Thr Asn Asp Pro
      115              120              125
Arg Arg Lys Pro Leu Asp Ser Arg Val Leu His Ala Val Lys Tyr Tyr
      130              135              140
Cys Gln Asn Phe Ala Pro Asn Phe Lys Glu Ser Glu Met Asn Ala Ile
  145              150              155              160
Ala Ala Asp Met Cys Thr Asn Ala Arg Arg Val Val Arg Lys Ser Trp
      165              170              175
Met Pro Lys Val Lys Val Leu Lys Ala Glu Asp Asp Ala Tyr Thr Thr
      180              185              190
Phe Ile Ser Glu Thr Gly Lys Ile Glu Pro Asp Met Met Gly Val Glu
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His Gly Phe Glu Thr Ala Ser His Glu Gly Glu Ala Gly Pro Ile Ala
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Glu Ala Leu Gln
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&lt;210&gt; 2771

&lt;211&gt; 1668

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2771

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 1668

&lt;210&gt; 2772

&lt;211&gt; 258

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2772

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			20					25					30		
Thr	Met	Ser	Thr	Val	Val	Glu	Leu	Asn	Val	Gly	Gly	Glu	Phe	His	Thr
		35					40					45			
Thr	Thr	Leu	Gly	Thr	Leu	Arg	Lys	Phe	Pro	Gly	Ser	Lys	Leu	Ala	Glu
		50				55					60				
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Phe	Ile	Asp	Arg	Pro	Ser	Thr	Tyr	Phe	Arg	Pro	Ile	Leu	Asp	Tyr	Leu
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<210> 2774
<211> 157
<212> PRT
<213> Homo sapiens
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 Glu Asp Ala Glu Glu Ser Leu Glu Glu Glu Ala Leu Asp Pro Leu  
 35 40 45  
 Gly Ile Met Arg Ser Lys Lys Pro Lys Lys His Pro Lys Val Ala Val  
 50 55 60  
 Lys Ala Lys Pro Ser Pro Arg Leu Thr Ile Phe Asp Glu Glu Val Asp  
 65 70 75 80  
 Pro Asp Glu Gly Leu Phe Gly Pro Gly Arg Lys Leu Ser Pro Gln Asp  
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 Pro Ser Glu Asp Val Ser Ser Met Asp Pro Leu Lys Leu Phe Asp Asp  
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&lt;210&gt; 2775

&lt;211&gt; 3139

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2775

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<211> 370

<212> PRT

<213> Homo sapiens

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			20					25					30		
Tyr	Gly	Ser	Phe	Pro	Ile	Phe	Ile	Ser	Ala	Leu	Leu	Phe	Gly	Asn	Phe
			35				40					45			
Trp	Thr	His	Pro	Ile	Thr	Asp	Gln	Leu	Arg	Ala	Met	Asn	Lys	Ala	Ala
			50				55				60				
His	Gln	Glu	Ser	Thr	Glu	His	Val	Leu	Ser	Gly	Gly	Val	Val	Val	Ser
65					70					75				80	
Ala	Ile	Phe	Phe	Ile	Leu	Ser	Ala	Asn	Ile	Leu	Ser	Ser	Pro	Ser	Lys
			85					90					95		
Arg	Gly	Gln	Lys	Gly	Thr	Leu	Ile	Gly	Tyr	Ser	Pro	Glu	Gly	Thr	Pro
			100					105					110		
Leu	Tyr	Asn	Phe	Met	Gly	Asp	Ala	Phe	Gln	His	Ser	Ser	Gln	Ser	Ile
			115				120						125		
Pro	Arg	Phe	Ile	Lys	Glu	Ser	Leu	Lys	Gln	Ile	Leu	Glu	Glu	Ser	Asp
			130				135						140		
Ser	Arg	Gln	Ile	Phe	Tyr	Phe	Leu	Cys	Leu	Asn	Leu	Leu	Phe	Thr	Phe
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<212> DNA
<213> Homo sapiens
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&lt;210&gt; 2778

&lt;211&gt; 1146

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2778

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 50 55 60  
 Asp Ser Cys Cys Ile Cys Ala Cys Asn Met Asn Ile Lys Gly Ala Asp  
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 Val Gly Leu Tyr Ile Pro Asp Ser Ser Asn Glu Asp Gln Tyr Arg Cys  
 85 90 95  
 Thr Cys Gly Phe Ser Ala Ile Met Asn Arg Lys Leu Gly Tyr Asn Ser  
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 Gly Leu Phe Leu Glu Asp Glu Leu Asp Ile Phe Gly Lys Asn Ser Asp  
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 Leu Pro Gln Val Glu Gly Thr Lys Lys Pro Gln Glu Pro Pro Ile Ser  
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 Pro Thr Gly Gly Lys Val Asp Glu Ala Leu Val Arg Ser Ala Thr Val  
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 His Ser Trp Pro His Ser Asn Val Leu Asp Ile Ser Met Leu Ser Ser  
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 Gln Asp Val Val Arg Met Leu Leu Ser Leu Gln Pro Phe Leu Gln Asp  
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 Val Gln Gly Pro Leu Thr Trp Gln Gln Phe His Lys Met Ala Gly Arg  
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 305 310 315 320  
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 Leu Pro Phe Trp Glu Arg Leu Leu Leu Asp Pro Tyr Gly Gly His Arg  
 340 345 350  
 Asp Val Ala Tyr Ile Val Val Cys Pro Glu Asn Glu Ala Leu Leu Glu  
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 Gly Ala Lys Thr Phe Phe Arg Asp Leu Ser Ala Val Tyr Glu Met Cys  
 370 375 380  
 Arg Leu Gly Gln His Lys Pro Ile Cys Lys Val Leu Arg Asp Gly Ile

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          420          425          430
Ser Arg Leu Lys Leu Tyr Ala Gln Val Cys Arg His His Leu Ala Pro
          435          440          445
Tyr Leu Ala Thr Leu Gln Leu Asp Ser Ser Leu Leu Ile Pro Pro Lys
          450          455          460
Tyr Gln Thr Pro Pro Ala Ala Ala Gln Gly Gln Ala Thr Pro Gly Asn
465          470          475          480
Ala Gly Pro Leu Ala Pro Asn Gly Ser Ala Ala Pro Pro Ala Gly Ser
          485          490          495
Ala Phe Asn Pro Thr Ser Asn Ser Ser Ser Thr Asn Pro Ala Ala Ser
          500          505          510
Ser Ser Ala Ser Gly Ser Ser Val Pro Pro Val Ser Ser Ser Ala Ser
          515          520          525
Ala Pro Gly Ile Ser Gln Ile Ser Thr Thr Ser Ser Ser Gly Phe Ser
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Gly Ser Val Gly Gly Gln Asn Pro Ser Thr Gly Gly Ile Ser Ala Asp
545          550          555          560
Arg Thr Gln Arg Asn Ile Gly Cys Gly Gly Asp Thr Asp Pro Gly Gln
          565          570          575
Ser Ser Ser Gln Pro Ser Gln Asp Gly Gln Glu Ser Val Thr Glu Arg
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Glu Arg Ile Gly Ile Pro Thr Glu Pro Asp Ser Ala Asp Ser His Ala
          595          600          605
His Pro Pro Ala Val Val Ile Tyr Met Val Asp Pro Phe Thr Tyr Ala
          610          615          620
Ala Glu Glu Asp Ser Thr Ser Gly Asn Phe Trp Leu Leu Ser Leu Met
625          630          635          640
Arg Cys Tyr Thr Glu Met Leu Asp Asn Leu Pro Glu His Met Arg Asn
          645          650          655
Ser Phe Ile Leu Gln Ile Val Pro Cys Gln Tyr Met Leu Gln Thr Met
          660          665          670
Lys Asp Glu Gln Val Phe Tyr Ile Gln Tyr Leu Lys Ser Met Ala Phe
          675          680          685
Ser Val Tyr Cys Gln Cys Arg Arg Pro Leu Pro Thr Gln Ile His Ile
          690          695          700
Lys Ser Leu Thr Gly Phe Gly Pro Ala Ala Ser Ile Glu Met Thr Leu
705          710          715          720
Lys Asn Pro Glu Arg Pro Ser Pro Ile Gln Leu Tyr Ser Pro Pro Phe
          725          730          735
Ile Leu Ala Pro Ile Lys Asp Lys Gln Thr Glu Leu Gly Glu Thr Phe
          740          745          750
Gly Glu Ala Ser Gln Lys Tyr Asn Val Leu Phe Val Gly Tyr Cys Leu
          755          760          765
Ser His Asp Gln Arg Trp Leu Leu Ala Ser Cys Thr Asp Leu His Gly
          770          775          780
Glu Leu Leu Glu Thr Cys Val Val Asn Ile Ala Leu Pro Asn Arg Ser
785          790          795          800
Arg Arg Ser Lys Val Ser Ala Arg Lys Ile Gly Leu Gln Lys Leu Trp
          805          810          815
Glu Trp Cys Ile Gly Ile Val Gln Met Thr Ser Leu Pro Trp Arg Val

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850	855	860
Lys Asp Val Cys Arg Met Cys Gly Ile Ser Ala Ala Asp Ser Pro Ser		
865	870	875
Ile Leu Ser Ala Cys Leu Val Ala Met Glu Pro Gln Gly Ser Phe Val		
885	890	895
Val Met Pro Asp Ala Val Thr Met Gly Ser Val Phe Gly Arg Ser Thr		
900	905	910
Ala Leu Asn Met Gln Ser Ser Gln Leu Asn Thr Pro Gln Asp Ala Ser		
915	920	925
Cys Thr His Ile Leu Val Phe Pro Thr Ser Ser Thr Ile Gln Val Ala		
930	935	940
Pro Ala Asn Tyr Pro Asn Glu Asp Gly Phe Ser Pro Asn Asn Asp Asp		
945	950	955
Met Phe Val Asp Leu Pro Phe Pro Asp Asp Met Asp Asn Asp Ile Gly		
965	970	975
Ile Leu Met Thr Gly Asn Leu His Ser Ser Pro Asn Ser Ser Pro Val		
980	985	990
Pro Ser Pro Gly Ser Pro Ser Gly Ile Gly Val Gly Ser His Phe Gln		
995	1000	1005
His Ser Arg Ser Gln Gly Glu Arg Leu Leu Ser Arg Glu Ala Pro Glu		
1010	1015	1020
Glu Leu Lys Gln Gln Pro Leu Ala Leu Gly Tyr Phe Val Ser Thr Ala		
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Lys Ala Glu Asn Leu Pro Gln Trp Phe Trp Ser Ser Cys Pro Gln Ala		
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Gln Asn Gln Cys Pro Leu Phe Leu Lys Ala Ser Leu His His His Ile		
1060	1065	1070
Ser Val Ala Gln Thr Asp Glu Leu Leu Pro Ala Arg Asn Ser Gln Arg		
1075	1080	1085
Val Pro His Pro Leu Asp Ser Lys Thr Thr Ser Asp Val Leu Arg Phe		
1090	1095	1100
Val Leu Glu Gln Tyr Asn Ala Leu Ser Trp Leu Thr Cys Asn Pro Ala		
1105	1110	1115
Thr Gln Asp Arg Thr Ser Cys Leu Pro Val His Phe Val Val Leu Thr		
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1140	1145	

&lt;210&gt; 2779

&lt;211&gt; 2461

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2779

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&lt;210&gt; 2780

&lt;211&gt; 720

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2780

Met	His	Ser	Glu	Gln	Gly	Gln	His	Val	Gln	Arg	Pro	Cys	Gly	Gly	1	5	10	15
Lys	Glu	Phe	Gly	Leu	Phe	Glu	Glu	Leu	Ser	Glu	Gly	Ser	Phe	Gly	Trp	20	25	30
Val	Thr	Gly	Ile	Arg	Arg	Met	Arg	Phe	Lys	Gly	Leu	Ala	Gly	Val	Asp	35	40	45
Ser	Ser	Leu	Glu	Val	Val	Ser	Leu	Leu	Pro	Pro	Arg	Ser	Phe	Ser	Leu	50	55	60
Asn	Ser	Glu	Gly	Ala	Glu	Arg	Met	Ala	Thr	Thr	Gly	Thr	Pro	Thr	Ala	65	70	75
Asp	Arg	Gly	Asp	Ala	Ala	Ala	Thr	Asp	Asp	Pro	Ala	Ala	Arg	Phe	Gln	85	90	95
Val	Gln	Lys	His	Ser	Trp	Asp	Gly	Leu	Arg	Ser	Ile	Ile	His	Gly	Ser	100	105	110
Arg	Lys	Tyr	Ser	Gly	Leu	Ile	Val	Asn	Lys	Ala	Pro	His	Asp	Phe	Gln	115	120	125
Phe	Val	Gln	Lys	Thr	Asp	Glu	Ser	Gly	Pro	His	Ser	His	Arg	Leu	Tyr	130	135	140
Tyr	Leu	Gly	Met	Pro	Tyr	Gly	Ser	Arg	Glu	Asn	Ser	Leu	Leu	Tyr	Ser	145	150	155
Glu	Ile	Pro	Lys	Lys	Val	Arg	Lys	Glu	Ala	Leu	Leu	Leu	Leu	Ser	Trp	165	170	175
Lys	Gln	Met	Leu	Asp	His	Phe	Gln	Ala	Thr	Pro	His	His	Gly	Val	Tyr			



2025

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Phe His Phe His Thr Arg Ser Asp Val Arg Leu Tyr Gly Met Ile Tyr		685
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&lt;210&gt; 2781

&lt;211&gt; 1268

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2781

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1020

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<210> 2782

<211> 314

<212> PRT

<213> Homo sapiens

<400> 2782

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			20					25					30		
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Tyr	Glu	Ala	Leu	His	Gly	Pro	Pro	Lys	Lys	Ile	Leu	Val	Glu	Gly	Ala
			100					105					110		
Asn	Ala	Ala	Leu	Leu	Asp	Ile	Asp	Phe	Gly	Thr	Tyr	Pro	Phe	Val	Thr
			115				120					125			
Ser	Ser	Asn	Cys	Thr	Val	Gly	Gly	Val	Cys	Thr	Gly	Leu	Gly	Ile	Pro
		130				135					140				
Pro	Gln	Asn	Ile	Gly	Asp	Val	Tyr	Gly	Val	Val	Lys	Ala	Tyr	Thr	Thr
145				150					155					160	
Arg	Val	Gly	Ile	Gly	Ala	Phe	Pro	Thr	Glu	Gln	Ile	Asn	Glu	Ile	Gly
			165						170					175	
Gly	Leu	Leu	Gln	Thr	Arg	Gly	His	Glu	Trp	Gly	Val	Thr	Thr	Gly	Arg
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Lys	Arg	Arg	Cys	Gly	Trp	Leu	Asp	Leu	Met	Ile	Leu	Arg	Tyr	Ala	His
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Met	Val	Asn	Gly	Phe	Thr	Ala	Leu	Ala	Leu	Thr	Lys	Leu	Asp	Ile	Leu
		210				215					220				
Asp	Val	Leu	Gly	Glu	Val	Lys	Val	Gly	Val	Ser	Tyr	Lys	Leu	Asn	Gly
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Lys	Arg	Ile	Pro	Tyr	Phe	Pro	Ala	Asn	Gln	Glu	Met	Leu	Gln	Lys	Val
			245					250					255		
Glu	Val	Glu	Tyr	Glu	Thr	Leu	Pro	Gly	Trp	Lys	Ala	Asp	Thr	Thr	Gly
		260					265					270			
Ala	Arg	Arg	Trp	Glu	Asp	Leu	Pro	Pro	Gln	Ala	Gln	Asn	Tyr	Ile	Arg
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Phe	Val	Glu	Asn	His	Val	Gly	Val	Ala	Val	Lys	Trp	Val	Gly	Val	Gly

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<210> 2783

<211> 2376

<212> DNA

<213> Homo sapiens

<400> 2783

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<212> PRT

<213> Homo sapiens

<400> 2784

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Leu	Arg	Leu	Lys	Glu	Pro	Met	Asp	Val	Asp	Val	Glu	Asp	Tyr	Tyr	Pro
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Ala	Phe	Leu	Asp	Met	Val	Arg	Ser	Leu	Leu	Asp	Gly	Asn	Ile	Asp	Ser
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Ser	Gln	Tyr	Glu	Asp	Ser	Leu	Arg	Glu	Met	Phe	Thr	Ile	His	Ala	Tyr
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Ile	Ala	Phe	Thr	Met	Asp	Lys	Leu	Ile	Gln	Ser	Ile	Val	Arg	Gln	Leu

				85						90					95		
Gln	His	Ile	Val	Ser	Asp	Glu	Ile	Cys	Val	Gln	Val	Thr	Asp	Leu	Tyr		
			100					105					110				
Leu	Ala	Glu	Asn	Asn	Asn	Gly	Ala	Thr	Gly	Gly	Gln	Leu	Asn	Thr	Gln		
		115				120					125						
Asn	Ser	Arg	Ser	Leu	Leu	Glu	Ser	Thr	Tyr	Gln	Arg	Lys	Ala	Glu	Gln		
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Leu	Met	Ser	Asp	Glu	Asn	Cys	Phe	Lys	Leu	Met	Phe	Ile	Gln	Ser	Gln		
145					150				155					160			
Gly	Gln	Val	Gln	Leu	Thr	Ile	Glu	Leu	Leu	Asp	Thr	Glu	Glu	Glu	Asn		
			165						170					175			
Ser	Asp	Asp	Pro	Val	Glu	Ala	Glu	Arg	Trp	Ser	Asp	Tyr	Val	Glu	Arg		
			180					185				190					
Tyr	Met	Asn	Ser	Asp	Thr	Thr	Ser	Pro	Glu	Leu	Arg	Glu	His	Leu	Ala		
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Gln	Lys	Pro	Val	Phe	Leu	Pro	Arg	Asn	Leu	Arg	Arg	Ile	Arg	Lys	Cys		
		210				215					220						
Gln	Arg	Gly	Arg	Glu	Gln	Gln	Glu	Lys	Glu	Gly	Lys	Glu	Gly	Asn	Ser		
225					230					235				240			
Lys	Lys	Thr	Met	Glu	Asn	Val	Asp	Ser	Leu	Asp	Lys	Leu	Glu	Cys	Arg		
			245						250					255			
Phe	Lys	Leu	Asn	Ser	Tyr	Lys	Met	Val	Tyr	Val	Ile	Lys	Ser	Glu	Asp		
		260						265				270					
Tyr	Met	Tyr	Arg	Arg	Thr	Ala	Leu	Leu	Arg	Ala	His	Gln	Ser	His	Glu		
		275					280					285					
Arg	Val	Ser	Lys	Arg	Leu	His	Gln	Arg	Phe	Gln	Ala	Trp	Val	Asp	Lys		
		290				295					300						
Trp	Thr	Lys	Glu	His	Val	Pro	Arg	Glu	Met	Ala	Ala	Glu	Thr	Ser	Lys		
305				310						315				320			
Trp	Leu	Met	Gly	Glu	Gly	Leu	Glu	Gly	Leu	Val	Pro	Cys	Thr	Thr	Thr		
			325						330					335			
Cys	Asp	Thr	Glu	Thr	Leu	His	Phe	Val	Ser	Ile	Asn	Lys	Tyr	Arg	Val		
		340						345				350					
Lys	Tyr	Gly	Thr	Val	Phe	Lys	Ala	Pro									
		355					360										

&lt;210&gt; 2785

&lt;211&gt; 492

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2785

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 <213> Homo sapiens

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 Asp Lys Ser Leu Ile His Thr Val Leu Leu Gln Lys Asp Tyr Gln Ala  
 65 70 75 80  
 Ser Glu Asp Lys Val Arg Gln Leu Val Lys Glu Ile Gly Arg Glu Ile  
 85 90 95  
 Gln Gln Leu Ser Met Ala Gly Cys Tyr Trp Leu Pro Gly Ser Thr Val  
 100 105 110  
 Glu His Val Ala Arg Cys Pro Gln Pro Gly Glu Gly Glu Pro Leu Gly  
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<213> Homo sapiens

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             20             25             30
Ala Gly His Ala Thr Met His Arg His Gly Ser Ile Leu Leu Val Gly
             35             40             45
Gly Ser His His Leu Leu Cys Pro Ala Leu Cys Trp Val Leu Leu Gln
             50             55             60
Val Leu Leu His Pro Ala Leu Glu Thr Ile Leu Trp Gly Ile Asp Ser
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<210> 2789

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<212> DNA

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<400> 2789

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<212> PRT

<213> Homo sapiens

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Pro Ala Gly Pro Pro Trp Thr Ala Ala Ser Ala Leu Leu Pro Ser Leu

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His Cys Pro Leu Leu Arg	Ala Glu Pro Gly Ala Gly Ser Arg Pro Ala			
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Gly Ser Pro Pro Thr Pro Pro Gly Leu Pro Pro Val Pro Arg Glu Arg				
	85	90	95	
Gln Ser Gln Lys Thr Gln Ala Gln Ala Ser Ala Thr Pro Ala Ala Cys				
	100	105	110	
Leu Ala Leu Ala Arg Gly Leu Arg Leu Cys Arg Leu Ser Thr Ser Gly				
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Arg Val Ala Leu Arg Arg Gly Ser Gly Ser Arg Pro Arg				
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&lt;210&gt; 2791

&lt;211&gt; 1271

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2791

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120

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180

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240

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360

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660

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780

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960

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1020

attaatagca tgcggaagaa agaattgggtt gcatccacat ggagagtgtg ccatttagag

1080

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<210> 2792

<211> 123

<212> PRT

<213> Homo sapiens

<400> 2792

Cys	Ser	Leu	His	Pro	Val	Leu	Leu	Phe	Leu	Asp	Val	Asn	Tyr	Glu	Asp
1				5					10					15	
Phe	Thr	Phe	Thr	Ile	Pro	Asp	Val	Glu	Asp	Ser	Ser	Gln	Arg	Pro	Asp
			20					25					30		
Gln	Gly	Pro	Gln	Arg	Pro	Pro	Pro	Glu	Gly	Leu	Leu	Pro	Arg	Pro	Pro
			35				40					45			
Gly	Asp	Ser	Gly	Asn	Gln	Asp	Asp	Gly	Pro	Gln	Gln	Arg	Pro	Pro	Lys
	50				55					60					
Pro	Gly	Gly	His	His	Arg	His	Pro	Pro	Pro	Pro	Phe	Gln	Asn	Gln	
65				70						75				80	
Gln	Arg	Pro	Pro	Gln	Arg	Gly	His	Arg	Gln	Leu	Ser	Leu	Pro	Arg	Phe
				85					90					95	
Pro	Ser	Val	Ser	Leu	Gln	Glu	Ala	Ser	Ser	Phe	Phe	Arg	Arg	Asp	Arg
				100				105					110		
Pro	Ala	Arg	His	Pro	Gln	Glu	Gln	Pro	Leu	Trp					
			115					120							

<210> 2793

<211> 847

<212> DNA

<213> Homo sapiens

<400> 2793

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 120  
 tgaggcggcg gcgtcactgc caggaaacaa cccaacagt cagcgcgccg gcggccgcgg  
 180  
 cggccctgag agctgactct gcagctgagg tagagagaca acgatcagga accctaagaa  
 240  
 gaggcgccag aggagccgcc ttctgcctca gaacggcgtg actcggagaa ttggagcgtt  
 300  
 attcagtata ttaatgtctt attgataatg gcagaacatc caccactact ggatacaact  
 360  
 cagatcttaa gtagtgatat ttctcttttg tctgcccta ttgtaagtgc agatggaaca  
 420  
 caacaggtta ttctggtaca agttaaccca ggagaagcat ttacaataag aagagaagat  
 480

ggacagtttc agtgcattac aggtcctgct caggttccaa tgatgtcccc aaatggttct  
 540  
 gtgcctccta tctatgtgcc tcttgatata gcccacaggt ttattgaaga caatggtggt  
 600  
 cgaagagttg tcgtgggtccc tcaggcacca gagtttcacc ctggtagtca cacagttctc  
 660  
 caccgttctc cacatcctcc tctacctggt ttcattcctg tcccaactat gatgccgcct  
 720  
 caccacgtca tatgtactca cccgtgactg gagctggaga catgacaaca cagtatatgc  
 780  
 cncagtatca gtcttcacaa gtctatggag atgtagatgc tcaactctaca catggccctt  
 840  
 cacgcgt  
 847

<210> 2794

<211> 139

<212> PRT

<213> Homo sapiens

<400> 2794

Met	Ala	Glu	His	Pro	Pro	Leu	Leu	Asp	Thr	Thr	Gln	Ile	Leu	Ser	Ser
1				5				10						15	
Asp	Ile	Ser	Leu	Leu	Ser	Ala	Pro	Ile	Val	Ser	Ala	Asp	Gly	Thr	Gln
		20						25					30		
Gln	Val	Ile	Leu	Val	Gln	Val	Asn	Pro	Gly	Glu	Ala	Phe	Thr	Ile	Arg
		35					40					45			
Arg	Glu	Asp	Gly	Gln	Phe	Gln	Cys	Ile	Thr	Gly	Pro	Ala	Gln	Val	Pro
50						55					60				
Met	Met	Ser	Pro	Asn	Gly	Ser	Val	Pro	Pro	Ile	Tyr	Val	Pro	Pro	Gly
65				70						75				80	
Tyr	Ala	Pro	Gln	Val	Ile	Glu	Asp	Asn	Gly	Val	Arg	Arg	Val	Val	Val
			85						90				95		
Val	Pro	Gln	Ala	Pro	Glu	Phe	His	Pro	Gly	Ser	His	Thr	Val	Leu	His
		100						105					110		
Arg	Ser	Pro	His	Pro	Pro	Leu	Pro	Gly	Phe	Ile	Pro	Val	Pro	Thr	Met
		115					120					125			
Met	Pro	Pro	His	His	Val	Ile	Cys	Thr	His	Pro					
130							135								

<210> 2795

<211> 1022

<212> DNA

<213> Homo sapiens

<400> 2795

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 ccaatgacca ccagcaccac gaagagcgtg ccgtagtcgc tgcgcacctg gctggcccg  
 120  
 gcctggcagc tgctggttgt ggaatagttc tggatgccaa tctcctccag gctcctgcgg  
 180  
 atgtcaccca gcatggaaag gacatcttga gtgggcacca cccctgctc gccaccagt  
 240

gtcattgagaa ggtgctgctc cttctcgctg ggcttgctca gagagatgtg ccaggcccca  
 300  
 tggtagccac tgccatggcg gggcagcacc tctccacca gggccaggag ctgtggcccc  
 360  
 cggtgctgcc ggaacacctc acagtctatg ttctctgtca tgttcagaat gatgtagttt  
 420  
 tccccagcca gattgctcca gtccttgtag atcacctgag tagaatcca gggtagcctg  
 480  
 gattgagctt cagctgcctg ccttcttagg agctgctggt tgagatcttc ttgtcccaag  
 540  
 gtagcagagg aaggtgtcag ttccatgtct ccaggggcca gtggggaaga ggctgaggtt  
 600  
 ctagagccaa ggggatcttc atctgggtgc tcggcccccac tgggagctgt ggtttgaggg  
 660  
 aatgaaggca aggcgggcac ctctctgtgc tggccagaca aaccagctgc tctgtagtg  
 720  
 gcttctctgc ttgcttctg aggagcctcg aactctaccc caagccctgc agctggcagc  
 780  
 actgtggcct ctgcctcttg gctggtggag tctggtccc ccggagtcac ttagttggg  
 840  
 gtgactgaag gcagcagcaa gctgggcccc atgctgctct ccacctcatc aggtgagtna  
 900  
 gaaaagtcac ggacctgagg cttggcttct tcttgggagc cattcacagg gacgagctcc  
 960  
 tctcttctc cctctcttg tttctctacc tcttcttct cctctctc ccttcaagc  
 1020  
 gt  
 1022

<210> 2796  
 <211> 56  
 <212> PRT  
 <213> Homo sapiens

<400> 2796  
 Ala Ser Ala Ala Cys Pro Ser Arg Ser Cys Trp Leu Arg Ser Ser Cys  
 1 5 10 15  
 Pro Lys Val Ala Glu Glu Gly Val Ser Ser Met Ser Pro Gly Ala Ser  
 20 25 30  
 Gly Glu Glu Ala Glu Val Leu Glu Pro Arg Gly Ser Ser Ser Gly Cys  
 35 40 45  
 Ser Ala Pro Leu Gly Ala Val Val  
 50 55

<210> 2797  
 <211> 475  
 <212> DNA  
 <213> Homo sapiens

<400> 2797  
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 gccctctca ttagcacctg catcctgccc aatgtggagg ccgtgagcaa catccacaac  
 120

ctgaactcca tcagcgagtc cccgcatgag cgcattgcacc cctacatcga gctggcctgg  
 180  
 ggcttctcca ccgtgcttgg catcctactc ttcctggccg aggtgggtgct gctctgctgg  
 240  
 atcaagttcc tccccgtgga tgcccgccgc cagcctggcc cccacactgg ccctgggagt  
 300  
 cacacgggct ggcaggccgc cctggtgtcc accatcatca tggtgcccgt gggcctcatc  
 360  
 ttcgtggtct tcaccatcca cttctaccgc tccctgggtgc gccacaaaac ggagcgccac  
 420  
 aaccgcgaga tcgaggagct ccacaagctc aaggctccagc tggacgggca tgagc  
 475

<210> 2798

<211> 158

<212> PRT

<213> Homo sapiens

<400> 2798

Arg	Pro	Leu	Leu	Ile	Ala	Phe	Ser	Ala	Cys	Thr	Thr	Val	Leu	Val	Ala
1				5				10					15		
Val	His	Leu	Phe	Ala	Leu	Leu	Ile	Ser	Thr	Cys	Ile	Leu	Pro	Asn	Val
		20						25				30			
Glu	Ala	Val	Ser	Asn	Ile	His	Asn	Leu	Asn	Ser	Ile	Ser	Glu	Ser	Pro
		35					40					45			
His	Glu	Arg	Met	His	Pro	Tyr	Ile	Glu	Leu	Ala	Trp	Gly	Phe	Ser	Thr
	50					55					60				
Val	Leu	Gly	Ile	Leu	Leu	Phe	Leu	Ala	Glu	Val	Val	Leu	Leu	Cys	Trp
65				70				75						80	
Ile	Lys	Phe	Leu	Pro	Val	Asp	Ala	Arg	Arg	Gln	Pro	Gly	Pro	Pro	Pro
			85					90					95		
Gly	Pro	Gly	Ser	His	Thr	Gly	Trp	Gln	Ala	Ala	Leu	Val	Ser	Thr	Ile
			100					105					110		
Ile	Met	Val	Pro	Val	Gly	Leu	Ile	Phe	Val	Val	Phe	Thr	Ile	His	Phe
	115					120					125				
Tyr	Arg	Ser	Leu	Val	Arg	His	Lys	Thr	Glu	Arg	His	Asn	Arg	Glu	Ile
	130					135					140				
Glu	Glu	Leu	His	Lys	Leu	Lys	Val	Gln	Leu	Asp	Gly	His	Glu		
145				150						155					

<210> 2799

<211> 2872

<212> DNA

<213> Homo sapiens

<400> 2799

ntatctttcg attcatctgt ggggtttcgg tttggaatga ccagcttgca aggcagggcc  
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 aatgggatga tggagtgtg gtagaccagg gcagacagcg atccgaagtt tggctcattg  
 120  
 gggcagccct tgagcttgac tcctctgggg ccagtctcta tcagaaaatg cctgaccagc  
 180  
 tcatgggtca tgtctccttt tttattctgc tgcattgatg ttggaggtgg cgaagacacc  
 240

ttcatggcca gcccgtacaa gcctgagatc tccagggagc aggccatcgc gtcctcaag  
300  
gaccaggagc cgggggcctt catcatccgc gacagtcaact ccttccgagg cgcgtacggg  
360  
ctggccatga aggtgtcttc gccacctcca accatcatgc agcagaataa aaaaggagac  
420  
atgacccatg agctggtcag gcattttctg atagagactg gccccagagg agtcaagctc  
480  
aagggctgcc ccaatgagcc aaacttcgga tcgctgtctg ccctggtcta ccagcactcc  
540  
atcatcccat tggccctgcc ttgcaagctg gtcattccaa accgagaccc cacagatgaa  
600  
tcgaaagata gctccggccc tgccaactca actgcagacc tgctgaaaca aggggcagcc  
660  
tgcaatgtgc tcttcatcaa ctctgtggac atggagtcac tcactgggccc acaggccatc  
720  
tctaaagcca catctgagac gttggctgca gacccacgc cagctgccac catcggtcac  
780  
ttcaaagtct ctgcccaggg aatcactctg actgacaacc agagaaagct ctttttcaga  
840  
cgccactacc ctctcaacac tgcaccttc tgtgacctgg atccacagga aagaaagtgg  
900  
atgaaaacag agggtggtgc ccctgctaag ctcttcggct tcgtggcccg gaagcagggc  
960  
agcaccacgg acaacgcctg ccacctcttt gctgagcttg accccaacca gccggcctct  
1020  
gccatcgta acttcgtctc caaggctcatg ctgaatgccg gccaaaagag atgaaccctg  
1080  
ccccctgccc agggccagtg ccatggggaa ggggcttctg gggaggggac ccatgaatcc  
1140  
tgaccactct tgaaccaga aggaggactt tgggccaatt tcggaggaga gaagaaagtg  
1200  
caacgtgggg agagggaagt gaattgcaga ggggaggggg aaaagagaga gagagagaga  
1260  
gagagagaga gagagagaga gagaaagatg gaggagaaga acttggtatc ccctgggtag  
1320  
atggaaactg caaaaaccca aagcctccaa aactaaccag gtccacctaa cccccctcc  
1380  
ctccccctaa aagatggatg tcctcaaaag agaaggaaca aacctccttg ggaatccaca  
1440  
ttttttgggg gaatggaaaa gctctgtctc cctaactcaa ctgctttgca aggggaaatc  
1500  
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1560  
ccgtgggaca tcaagtggaa gaacttggtt gcttgaaagt atctcagacc caaggcacct  
1620  
caggtctctt tgctgtgcct ccactatatt gtcgtgtggg tgtgtgtctg caccacatc  
1680  
ctcacacatt gatctagatc tgcccttctc cactcgaatt ataaacagct cggttctcc  
1740  
ttgtcccatg tgttttaga cacacatgca tactgtccaa agattagggg tgggtggtggc  
1800  
agtgcagcag gggagggaca aacaaccaag ctatgggtga cagaggctct ctctgggtgc  
1860

ctgcacctgc actctagtga ccttgggtgc cgccagaccc ttctcttcta caaagacccc  
 1920  
 agcaggagtg ggaggggtctg caatggcatc gccctgtcct gccttggcca gaagcctgga  
 1980  
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 2040  
 agctgttgag ctctgggtgt cttccccaag gcatgtggct cagcagcaag aaaggcaagt  
 2100  
 tgctcctgct ggggccctgg actctgcctt agctcccacc tctcagcctt gttattgggt  
 2160  
 ttcatgcccc tggaccagcc ttatctcaga cctgcttacc tgcattgatgc ctttttgggg  
 2220  
 gctggggatt gactcttgct gctctgcca gccctgttct attctgcagg gtccctgtgt  
 2280  
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 2340  
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 2400  
 cagcagagct cctgggcctg ctgcctgcac accacatcgc ctacctacaa tgccaaagcc  
 2460  
 tcaactgtcac cttttctgcc ttgggtttccc tagctgagcc acgctgcccc tgcagcagag  
 2520  
 ggcagaaggc ttgcacttgg gccaaagggc ctaagggtcca ctggacagtt gggaaaacac  
 2580  
 ctgaccacca tttaaggact ctaagccaga atggaaaatt caccaggact ccattcttaa  
 2640  
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 2700  
 acatgagaca tactgacaga atctgtaagc taataaaatg taagaaaagg ttaaaaaaag  
 2760  
 aataggtaaa ttgacaagaa gtatttattg tttttccata ttgctttatt gccttccttg  
 2820  
 gggataaacc aattcctatc cttttttata tgtgtaagta aagcctgaag tg  
 2872

&lt;210&gt; 2800

&lt;211&gt; 294

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2800

Met Ser Pro Phe Leu Phe Cys Cys Met Met Val Gly Gly Gly Glu Asp  
 1 5 10 15  
 Thr Phe Met Ala Ser Pro Tyr Lys Pro Glu Ile Ser Arg Glu Gln Ala  
 20 25 30  
 Ile Ala Leu Leu Lys Asp Gln Glu Pro Gly Ala Phe Ile Ile Arg Asp  
 35 40 45  
 Ser His Ser Phe Arg Gly Ala Tyr Gly Leu Ala Met Lys Val Ser Ser  
 50 55 60  
 Pro Pro Pro Thr Ile Met Gln Gln Asn Lys Lys Gly Asp Met Thr His  
 65 70 75 80  
 Glu Leu Val Arg His Phe Leu Ile Glu Thr Gly Pro Arg Gly Val Lys  
 85 90 95  
 Leu Lys Gly Cys Pro Asn Glu Pro Asn Phe Gly Ser Leu Ser Ala Leu

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      100      105      110
Val Tyr Gln His Ser Ile Ile Pro Leu Ala Leu Pro Cys Lys Leu Val
      115      120      125
Ile Pro Asn Arg Asp Pro Thr Asp Glu Ser Lys Asp Ser Ser Gly Pro
      130      135      140
Ala Asn Ser Thr Ala Asp Leu Leu Lys Gln Gly Ala Ala Cys Asn Val
      145      150      155      160
Leu Phe Ile Asn Ser Val Asp Met Glu Ser Leu Thr Gly Pro Gln Ala
      165      170      175
Ile Ser Lys Ala Thr Ser Glu Thr Leu Ala Ala Asp Pro Thr Pro Ala
      180      185      190
Ala Thr Ile Val His Phe Lys Val Ser Ala Gln Gly Ile Thr Leu Thr
      195      200      205
Asp Asn Gln Arg Lys Leu Phe Phe Arg Arg His Tyr Pro Leu Asn Thr
      210      215      220
Val Thr Phe Cys Asp Leu Asp Pro Gln Glu Arg Lys Trp Met Lys Thr
      225      230      235      240
Glu Gly Gly Ala Pro Ala Lys Leu Phe Gly Phe Val Ala Arg Lys Gln
      245      250      255
Gly Ser Thr Thr Asp Asn Ala Cys His Leu Phe Ala Glu Leu Asp Pro
      260      265      270
Asn Gln Pro Ala Ser Ala Ile Val Asn Phe Val Ser Lys Val Met Leu
      275      280      285
Asn Ala Gly Gln Lys Arg
      290

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<210> 2801
<211> 549
<212> DNA
<213> Homo sapiens

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<400> 2801
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cagggggccc gggccgctgc gtgttgctcca cccaagatgg agttctctct ggggaacccg
120
ttcagcacac cagtggggca gtgcctcgaa aaggcaacag atggctccct gcaaagtgag
180
gattggacgt tgaatatgga gatctgtgac atcatcaatg agacggagga agggccaaag
240
gatgccattc gagccctgaa gaagcggctc aacgggaacc ggaactacag agaggtgatg
300
ctggcattaa cagtgtgga gacatgtgtg aagaactgtg gccaccgctt ccacatcctt
360
gtggccaacc gagatttcat cgacagtgtt ctgggtcaaaa ttatatctcc caagaacaac
420
cctcccacca ttgtacagga caaagtgtt gctctgatcc aggcattggc tgatgccttt
480
cgaagcagtc ctgatctcac cggcgttgtg cacatatatg aggagctgaa gaggaagg
540
gttgaattc
549

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<210> 2802

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<211> 151  
 <212> PRT  
 <213> Homo sapiens

<400> 2802  
 Met Glu Phe Leu Leu Gly Asn Pro Phe Ser Thr Pro Val Gly Gln Cys  
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 Leu Glu Lys Ala Thr Asp Gly Ser Leu Gln Ser Glu Asp Trp Thr Leu  
                   20                  25                  30  
 Asn Met Glu Ile Cys Asp Ile Ile Asn Glu Thr Glu Glu Gly Pro Lys  
           35                  40                  45  
 Asp Ala Ile Arg Ala Leu Lys Lys Arg Leu Asn Gly Asn Arg Asn Tyr  
   50                  55                  60  
 Arg Glu Val Met Leu Ala Leu Thr Val Leu Glu Thr Cys Val Lys Asn  
 65                  70                  75                  80  
 Cys Gly His Arg Phe His Ile Leu Val Ala Asn Arg Asp Phe Ile Asp  
                   85                  90                  95  
 Ser Val Leu Val Lys Ile Ile Ser Pro Lys Asn Asn Pro Pro Thr Ile  
                   100                  105                  110  
 Val Gln Asp Lys Val Leu Ala Leu Ile Gln Ala Trp Ala Asp Ala Phe  
                   115                  120                  125  
 Arg Ser Ser Pro Asp Leu Thr Gly Val Val His Ile Tyr Glu Glu Leu  
           130                  135                  140  
 Lys Arg Lys Gly Val Glu Phe  
 145                  150

<210> 2803  
 <211> 459  
 <212> DNA  
 <213> Homo sapiens

<400> 2803  
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 tggccccac caccggagg agcagctcct gccctgtcc ggggatgac tgattctcct  
 120  
 ccgccagccg tagggtgtgt gctgtccggg ctcacgggga ccctgtctcc gagtcgttcg  
 180  
 tgcagcgtgt gtaccagccc ttcctacca cctgcgacgg gcaccggggc tgcagcacct  
 240  
 accgcaatat gccagccgcc atgccggaac ggagggagct gtgtccagcc tggccgctgc  
 300  
 cgctgccctg caggatggcg gggtgacact tgccagtcag atgtggacna gtgcaatgaa  
 360  
 ggaagaagtg cagaggctgc agtccagggt ggacctgctg gaggagaagc tgcagctggg  
 420  
 actggcccca ctgcacagcc tggcctcgca ggcactgga  
 459

<210> 2804  
 <211> 153  
 <212> PRT  
 <213> Homo sapiens

&lt;400&gt; 2804

Xaa Met Ala Thr Pro Gly Leu Gln Gln His Gln Gln Pro Pro Gly Pro  
 1 5 10 15  
 Gly Arg His Arg Trp Pro Pro Pro Pro Gly Gly Ala Ala Pro Ala Pro  
 20 25 30  
 Val Arg Gly Met Thr Asp Ser Pro Pro Pro Ala Val Gly Cys Val Leu  
 35 40 45  
 Ser Gly Leu Thr Gly Thr Leu Ser Pro Ser Arg Ser Cys Ser Val Cys  
 50 55 60  
 Thr Ser Pro Ser Ser Pro Pro Ala Thr Gly Thr Gly Pro Ala Ala Pro  
 65 70 75 80  
 Thr Ala Ile Cys Gln Pro Pro Cys Arg Asn Gly Gly Ser Cys Val Gln  
 85 90 95  
 Pro Gly Arg Cys Arg Cys Pro Ala Gly Trp Arg Gly Asp Thr Cys Gln  
 100 105 110  
 Ser Asp Val Asp Xaa Cys Asn Glu Gly Arg Ser Ala Glu Ala Ala Val  
 115 120 125  
 Gln Gly Gly Pro Ala Gly Gly Glu Ala Ala Ala Gly Thr Gly Pro Thr  
 130 135 140  
 Ala Gln Pro Gly Leu Ala Gly Thr Gly  
 145 150

&lt;210&gt; 2805

&lt;211&gt; 771

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2805

nnaaatttct gtgtggtgga gctgctgcct agtgatcctg agtacaacac ggtggcaagc  
 60  
 aagtttaatc agacctgctc acacttcaga atagagaaga ttgagaggat ccagaatcca  
 120  
 gatctctgga atagctacca ggcaaagaaa aaaactatgg atgccaagaa tggccagaca  
 180  
 atgaatgaga agcaactctt ccatgggaca gatgccggct ccgtgccaca cgtcaatcga  
 240  
 aatggcttta accgcagcta tgccggaaag aatgctgtgg catatggaaa gggaacctat  
 300  
 tttgctgtca atgccaatta ttctgccaat gatacgtact ccagaccaga tgcaaatggg  
 360  
 agaaagcatg tgtattatgt gcgagtactt actggaatct atacacatgg aaatcattca  
 420  
 ttaattgtgc ctcttcaaa gaacctcaa aatcctactg acctgtatga cactgtcaca  
 480  
 gataatgtgc accatccaag tttatttgtg gcattttatg actaccaagc ataccagag  
 540  
 taccttatta cgtttagaaa ataacacttt ggtatccttc ccacaaaatt attctccatt  
 600  
 tgtacatata tagttgtaaa acaagtttta gctttttttt ttaattcctc ttaacagatt  
 660  
 tttctaatat ccaaggatca ttctttgtcg ctgcagtcag atctttcttc agcttctctt  
 720  
 tcataatgga aatgaactta ttatcttgag agccaaataa cttggaaatt t  
 771

<210> 2806  
 <211> 187  
 <212> PRT  
 <213> Homo sapiens

<400> 2806

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Thr Val Ala Ser Lys Phe Asn Gln Thr Cys Ser His Phe Arg Ile Glu
      20           25           30
Lys Ile Glu Arg Ile Gln Asn Pro Asp Leu Trp Asn Ser Tyr Gln Ala
      35           40           45
Lys Lys Lys Thr Met Asp Ala Lys Asn Gly Gln Thr Met Asn Glu Lys
      50           55           60
Gln Leu Phe His Gly Thr Asp Ala Gly Ser Val Pro His Val Asn Arg
 65           70           75           80
Asn Gly Phe Asn Arg Ser Tyr Ala Gly Lys Asn Ala Val Ala Tyr Gly
      85           90           95
Lys Gly Thr Tyr Phe Ala Val Asn Ala Asn Tyr Ser Ala Asn Asp Thr
      100          105          110
Tyr Ser Arg Pro Asp Ala Asn Gly Arg Lys His Val Tyr Tyr Val Arg
      115          120          125
Val Leu Thr Gly Ile Tyr Thr His Gly Asn His Ser Leu Ile Val Pro
      130          135          140
Pro Ser Lys Asn Pro Gln Asn Pro Thr Asp Leu Tyr Asp Thr Val Thr
 145          150          155          160
Asp Asn Val His His Pro Ser Leu Phe Val Ala Phe Tyr Asp Tyr Gln
      165          170          175
Ala Tyr Pro Glu Tyr Leu Ile Thr Phe Arg Lys
      180          185

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<210> 2807  
 <211> 1660  
 <212> DNA  
 <213> Homo sapiens

<400> 2807

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 420
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 480

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 aagtgtccag aggaacatgg tcatgggctc gtcaacctg gctgaagact caagttgggc  
 660  
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 780  
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 900  
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 960  
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 1080  
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 1620  
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 1660

&lt;210&gt; 2808

&lt;211&gt; 390

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2808

Met	Leu	Phe	Glu	Lys	Asp	Gly	Ser	Ser	Cys	Ile	Ser	Arg	Arg	Pro	Leu
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Glu	Leu	Ala	Gly	Cys	Ala	Ser	Cys	Leu	Thr	Val	Gln	Asp	Asn	Trp	Thr
		20						25					30		
Leu	Glu	Leu	Glu	Ser	Ser	Gln	Asp	Ile	Gln	Asp	Val	Leu	Asp	Ala	Asn
		35				40						45			
Lys	Ser	Leu	Pro	Glu	Ser	Ser	Leu	Thr	Asp	Leu	Leu	Ser	Asp	Asn	Phe

50	55	60
Thr Asp Ser Leu Val	Ser Phe Ser Ala Glu Ile	Leu Ser Arg Thr Leu
65	70	75
Cys Glu Pro Leu Val	Ala Ser Leu Trp Met Lys	Leu Gly Asn Thr Gly
85	90	95
Ala Met Arg Arg Cys Val	Lys Leu Thr Val Ala	Leu Glu Thr Ala Glu
100	105	110
Cys Glu Phe Pro Pro His	Leu Asp Val Tyr Ile	Glu Asp Pro His Leu
115	120	125
Pro Pro Ser Leu Gly Leu	Leu Pro Gly Ala Arg	Val His Phe Ser Gln
130	135	140
Leu Glu Lys Arg Val Ser	Arg Ser His Asn Val	Tyr Cys Cys Phe Arg
145	150	155
Ser Ser Thr Tyr Val Gln	Val Leu Ser Phe Pro	Pro Glu Thr Thr Ile
165	170	175
Ser Val Pro Leu Pro His	Ile Tyr Leu Ala Glu	Leu Leu Gln Gly Gly
180	185	190
Gln Ser Pro Phe Gln Ala	Thr Ala Ser Cys His	Ile Val Ser Val Phe
195	200	205
Ser Leu Gln Leu Phe Trp	Val Cys Ala Tyr Cys	Thr Ser Ile Cys Arg
210	215	220
Gln Gly Lys Cys Thr Arg	Leu Gly Ser Thr Cys	Pro Thr Gln Thr Ala
225	230	235
Ile Ser Gln Ala Ile Ile	Arg Leu Leu Val Glu	Asp Gly Thr Ala Glu
245	250	255
Ala Val Val Thr Cys Arg	Asn His His Val Ala	Ala Ala Leu Gly Leu
260	265	270
Cys Pro Arg Glu Trp Ala	Ser Leu Leu Asp Phe	Val Gln Val Pro Gly
275	280	285
Arg Val Val Leu Gln Phe	Ala Gly Pro Gly Ala	Gln Leu Glu Ser Ser
290	295	300
Ala Arg Val Asp Glu Pro	Met Thr Met Phe Leu	Trp Thr Leu Cys Thr
305	310	315
Ser Pro Ser Val Leu Arg	Pro Ile Val Leu Ser	Phe Glu Leu Glu Arg
325	330	335
Lys Pro Ser Lys Ile Val	Pro Leu Glu Pro Pro	Arg Leu Gln Arg Phe
340	345	350
Gln Cys Gly Glu Leu Pro	Phe Leu Thr His Val	Asn Pro Arg Leu Arg
355	360	365
Leu Ser Cys Leu Ser Ile	Arg Glu Ser Glu Tyr	Ser Ser Ser Leu Gly
370	375	380
Ile Leu Ala Ser Ser Cys		
385	390	

&lt;210&gt; 2809

&lt;211&gt; 1502

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2809

```

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60
ggccccctc tgagggggct ctagtgcctg accctgatct gtcctcattc gacagctgaa
120

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180  
tcaaagggaa atttttacgg aaacatcttg gcagcaagtg gaaaaagatc tatggcccat  
240  
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360  
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1440  
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1500  
aa  
1502

&lt;210&gt; 2810

&lt;211&gt; 102

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2810

Glu Cys Ala Cys Ala Arg Val Cys Val Cys Val Arg Leu Cys Val Arg  
 1 5 10 15  
 Val Cys Val Cys Ala Arg Leu Cys Val Cys Val Cys Ala Ser Val Cys  
 20 25 30  
 Ala Cys Val Cys Ala Cys Val Arg Leu Cys Val Arg Leu Cys Ala Cys  
 35 40 45  
 Val Cys Ala Ser Val Cys Met Cys Ala Arg Ala Xaa Val Cys Val Cys  
 50 55 60  
 Thr Cys Val Xaa Leu Cys Thr Arg Val Cys Val Cys Val His Ala Cys  
 65 70 75 80  
 Val Cys Val Cys Ala Arg Ala Cys Thr Ser Pro Pro Glu His Leu Gly  
 85 90 95  
 Phe Gly Thr Arg Trp Phe  
 100

&lt;210&gt; 2811

&lt;211&gt; 591

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2811

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 120  
 caaaggagac cataaagtgt aggatatttc ctggttagtg gctgccgggt aatcacgatg  
 180  
 catccatctt cctcggcgtc gcagccctca gtagccagaa ggcagctctc ttccctgggg  
 240  
 ggcaaaagcc ccgagcccag cctgcccngt tgccccgctc ccgcggtgga tgaacctcaa  
 300  
 cccnnttccc aggtctctcc tggccccagg gtcccaggac ccccgagacc ctgggggtgcg  
 360  
 gcgccactga ggcccagacc gggggaagga gaccctgtca ctcgggagcg gagccctgtc  
 420  
 ccgggagcga cggaaatgcc tcctccacgc cccaagggtc ctgctccgcc aggcccaacc  
 480  
 ggaaggagtc ctcgggccgc agtggggcac caccgggccc ccggccctcc aggtgcgtg  
 540  
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 591

&lt;210&gt; 2812

&lt;211&gt; 131

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2812

Met His Pro Ser Ser Ser Ala Ser Gln Pro Ser Val Ala Arg Arg Gln  
 1 5 10 15  
 Ser Pro Ser Leu Gly Gly Lys Ser Pro Glu Pro Ser Leu Pro Xaa Cys  
 20 25 30  
 Pro Ala Pro Ala Val Asp Glu Pro Gln Pro Xaa Ser Gln Ala Pro Pro

35	40	45
Gly Pro Arg Val Pro Gly Pro Pro Arg Pro Trp Gly Ala Ala Pro Leu		
50	55	60
Arg Pro Arg Pro Gly Glu Gly Asp Pro Val Thr Arg Glu Arg Ser Pro		
65	70	75
Val Pro Gly Ala Thr Glu Met Pro Pro Pro Arg Pro Lys Val Pro Ala		
85	90	95
Pro Pro Gly Pro Thr Gly Arg Ser Pro Arg Ala Ala Val Gly His His		
100	105	110
Arg Ala Ala Gly Pro Pro Gly Cys Val Gly Pro Ser Leu Ser Gly Gln		
115	120	125
Leu Gly Ser		
130		

&lt;210&gt; 2813

&lt;211&gt; 2417

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2813

```

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120
tgctgcagtt cagtgttgct ccagatttta tgcttggtgt tagatttctc tgttctctaa
180
tttgtaagt ttgtctttaa tatttcacag gctttcttga tcatggatgg tgaagatata
240
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300
aagcaaagct tccaggaagc tcgggatgag ctagttgaat tccaggaagg aagcagagaa
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480
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780
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900
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1020

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2400  
aaaaaaaaaa aaaaaaa  
2417

&lt;210&gt; 2814

&lt;211&gt; 471

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2814

```

Phe Val Lys Phe Val Phe Asn Ile Ser Gln Ala Phe Leu Ile Met Asp
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Gly Glu Asp Ile Pro Asp Phe Ser Ser Leu Lys Glu Glu Thr Ala Tyr
      20          25          30
Trp Lys Glu Leu Ser Leu Lys Tyr Lys Gln Ser Phe Gln Glu Ala Arg
      35          40          45
Asp Glu Leu Val Glu Phe Gln Glu Gly Ser Arg Glu Leu Glu Ala Glu
      50          55          60
Leu Glu Ala Gln Leu Val Gln Ala Glu Gln Arg Asn Arg Asp Leu Gln
      65          70          75          80
Ala Asp Asn Gln Arg Leu Lys Tyr Glu Val Glu Ala Leu Lys Glu Lys
      85          90          95
Leu Glu His Gln Tyr Ala Gln Ser Tyr Lys Gln Val Ser Val Leu Glu
      100          105          110
Asp Asp Leu Ser Gln Thr Arg Ala Ile Lys Glu Gln Leu His Lys Tyr
      115          120          125
Val Arg Glu Leu Glu Gln Ala Asn Asp Asp Leu Glu Arg Ala Lys Arg
      130          135          140
Ala Thr Ile Val Ser Leu Glu Thr Leu Asn Lys Leu Asn Gln Ala Ile
      145          150          155          160
Glu Arg Asn Ala Phe Leu Glu Ser Glu Leu Asp Glu Lys Glu Ser Leu
      165          170          175
Leu Val Ser Val Gln Arg Leu Lys Asp Glu Ala Arg Asp Leu Arg Gln
      180          185          190
Glu Leu Ala Val Arg Glu Arg Gln Gln Glu Val Thr Arg Lys Ser Ala
      195          200          205
Pro Ser Ser Pro Thr Leu Asp Cys Glu Lys Met Asp Ser Ala Val Gln
      210          215          220
Ala Ser Leu Ser Leu Pro Ala Thr Pro Val Gly Lys Gly Thr Glu Asn
      225          230          235          240
Thr Phe Pro Ser Pro Lys Ala Ile Pro Asn Gly Phe Gly Thr Ser Pro
      245          250          255
Leu Thr Pro Ser Ala Arg Ile Ser Ala Leu Asn Ile Val Gly Asp Leu
      260          265          270
Leu Arg Lys Val Gly Ala Leu Glu Ser Lys Leu Ala Ala Cys Arg Asn
      275          280          285
Phe Ala Lys Asp Gln Ala Ser Arg Lys Ser Tyr Ile Ser Gly Asn Val
      290          295          300
Asn Cys Gly Val Leu Asn Gly Asn Gly Thr Lys Phe Ser Arg Ser Gly
      305          310          315          320
His Thr Ser Phe Phe Asp Lys Gly Ala Val Asn Gly Phe Asp Pro Ala
      325          330          335
Pro Pro Pro Pro Gly Leu Gly Ser Ser Arg Pro Ser Ser Ala Pro Gly
      340          345          350
Met Cys Leu Ser Val Cys Glu Cys Leu Ala Ser Arg Gly Ala Pro Ala
      355          360          365
Leu Leu Gln Gln Pro Arg Thr Pro Thr Pro His Pro Ser Val Pro Gly
      370          375          380
Pro Ser Pro Val Pro Leu Arg Leu Pro Pro His Gly Trp Gln Arg Ala
      385          390          395          400
Gly Cys Met Gln Trp Arg Leu Leu Gly Pro Ala Gln Pro Arg Asn Ser
      405          410          415
Ala Arg Tyr Gln Tyr Trp Leu Phe Ser Leu Leu Ala Val Val Pro Leu

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          420          425          430
Val Ser His Asp Cys Thr Phe Val Gly Arg Lys Val Ile His Thr Cys
          435          440          445
Ile Thr Trp Ser Leu Asp Ala Glu Val Pro Ile His His Thr Cys Pro
          450          455          460
Ile Ala Pro Thr Leu Leu Tyr
465          470

<210> 2815
<211> 1421
<212> DNA
<213> Homo sapiens

<400> 2815
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180
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240
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300
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360
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720
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780
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840
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1200

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 1260  
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 1320  
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 1380  
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 1421

<210> 2816

<211> 307

<212> PRT

<213> Homo sapiens

<400> 2816

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			20					25					30		
Val	Arg	Ala	His	Gly	Asp	Pro	Val	Ser	Glu	Ser	Phe	Val	Gln	Arg	Val
		35					40					45			
Tyr	Gln	Pro	Phe	Leu	Thr	Thr	Cys	Asp	Gly	His	Arg	Ala	Cys	Ser	Thr
	50					55				60					
Tyr	Arg	Thr	Ile	Tyr	Arg	Thr	Ala	Tyr	Arg	Arg	Ser	Pro	Gly	Leu	Ala
65				70					75					80	
Pro	Ala	Arg	Pro	Arg	Tyr	Ala	Cys	Cys	Pro	Gly	Trp	Lys	Arg	Thr	Ser
			85					90						95	
Gly	Leu	Pro	Gly	Ala	Cys	Gly	Ala	Ala	Ile	Cys	Gln	Pro	Pro	Cys	Arg
			100				105						110		
Asn	Gly	Gly	Ser	Cys	Val	Gln	Pro	Gly	Arg	Cys	Arg	Cys	Pro	Ala	Gly
	115						120					125			
Trp	Arg	Gly	Asp	Thr	Cys	Gln	Ser	Asp	Val	Asp	Glu	Cys	Ser	Ala	Arg
	130				135					140					
Arg	Gly	Gly	Cys	Pro	Gln	Arg	Cys	Val	Asn	Thr	Ala	Gly	Ser	Tyr	Trp
145				150					155					160	
Cys	Gln	Cys	Trp	Glu	Gly	His	Ser	Leu	Ser	Ala	Asp	Gly	Thr	Leu	Cys
			165					170						175	
Val	Pro	Lys	Gly	Gly	Pro	Pro	Arg	Val	Ala	Pro	Asn	Pro	Thr	Gly	Val
			180				185						190		
Asp	Ser	Ala	Met	Lys	Glu	Glu	Val	Gln	Arg	Leu	Gln	Ser	Arg	Val	Asp
	195						200					205			
Leu	Leu	Glu	Glu	Lys	Leu	Gln	Leu	Val	Leu	Ala	Pro	Leu	His	Ser	Leu
	210				215						220				
Ala	Ser	Gln	Ala	Gly	Ala	Trp	Ala	Pro	Gly	Pro	Arg	Gln	Pro	Pro	Gly
225				230					235					240	
Ala	Leu	Leu	Pro	Ala	Ala	Arg	Pro	His	Arg	Leu	Pro	Glu	Arg	Ala	Asp
			245					250						255	
Phe	Leu	Pro	Gly	Gly	Ala	Ala	Gly	Val	Leu	Leu	Leu	Gln	Glu	Arg	Leu
			260				265						270		
Xaa	Asp	Cys	Pro	Ala	Pro	Gln	Ala	Gly	Leu	Ser	Pro	Ser	Arg	Arg	Pro
	275						280					285			
Ala	Ala	Pro	Met	Pro	Leu	Pro	Asn	Met	Leu	Gly	Val	Gln	Lys	Pro	Pro
	290				295						300				
Arg	Gly	Asp													

305

&lt;210&gt; 2817

&lt;211&gt; 219

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2817

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 60  
 ctgaacacgc ggtttctggt gcagagcgcc gagcggcctg gcgcctccct gggcccgggg  
 120  
 gttctgctgc gggcggagtt ccatcagcac cagcacacac accagcacac gcaccaacac  
 180  
 acacaccagc accaacacac attcgccccc ttcacgcgt  
 219

&lt;210&gt; 2818

&lt;211&gt; 73

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2818

Xaa	Gly	Phe	Ser	Val	Ser	Leu	Ser	Phe	Phe	Leu	Val	Asp	His	Glu	Leu
1				5					10					15	
Leu	Arg	Gln	Glu	Leu	Asn	Thr	Arg	Phe	Leu	Val	Gln	Ser	Ala	Glu	Arg
			20					25				30			
Pro	Gly	Ala	Ser	Leu	Gly	Pro	Gly	Val	Leu	Leu	Arg	Ala	Glu	Phe	His
		35				40					45				
Gln	His	Gln	His	Thr	His	Gln	His	Thr	His	Gln	His	Thr	His	Gln	His
	50					55				60					
Gln	His	Thr	Phe	Ala	Pro	Phe	Thr	Arg							
65						70									

&lt;210&gt; 2819

&lt;211&gt; 730

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2819

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 60  
 gatcgaggcc tccaagggaa atatggcaaa acaggctcag caggggccag gggccacact  
 120  
 ggacccaaaag ggcagaaggg ctccatgggg gccctgggg agcgggtgcaa gagccactac  
 180  
 gccgcctttt cgggtgggccg ggaagcccat gcacagcaac cactactacc agacgtgatc  
 240  
 ttgcacacgg agttcgtgaa cctctacgac cacttcaaca tgttcaccgg caagttctac  
 300  
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 360  
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 420

gaccgcagca tcattgcaaag ccagagcctg atgctggagc tgcgagagca ggaccaggtg  
 480  
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 540  
 tacatcacct tcagtggcta cctgggtcaag cagccaccg agccctagct ggccggccac  
 600  
 ctcctttcct ctgccacct tccacccctg cgctgtgctg accccaccgc ctcttccccg  
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 720  
 gccaaagcga  
 730

<210> 2820

<211> 195

<212> PRT

<213> Homo sapiens

<400> 2820

Xaa	Thr	Ala	Val	Pro	Gln	Ile	Asn	Ile	Thr	Ile	Leu	Lys	Gly	Glu	Lys	1	5	10	15
Gly	Asp	Arg	Gly	Asp	Arg	Gly	Leu	Gln	Gly	Lys	Tyr	Gly	Lys	Thr	Gly	20	25	30	
Ser	Ala	Gly	Ala	Arg	Gly	His	Thr	Gly	Pro	Lys	Gly	Gln	Lys	Gly	Ser	35	40	45	
Met	Gly	Ala	Pro	Gly	Glu	Arg	Cys	Lys	Ser	His	Tyr	Ala	Ala	Phe	Ser	50	55	60	
Val	Gly	Arg	Glu	Ala	His	Ala	Gln	Gln	Pro	Leu	Leu	Pro	Asp	Val	Ile	65	70	75	80
Phe	Asp	Thr	Glu	Phe	Val	Asn	Leu	Tyr	Asp	His	Phe	Asn	Met	Phe	Thr	85	90	95	
Gly	Lys	Phe	Tyr	Cys	Tyr	Val	Pro	Gly	Leu	Tyr	Phe	Phe	Ser	Leu	Asn	100	105	110	
Val	His	Thr	Trp	Asn	Gln	Lys	Glu	Thr	Tyr	Leu	His	Ile	Met	Lys	Asn	115	120	125	
Glu	Glu	Glu	Val	Val	Ile	Leu	Phe	Ala	Gln	Val	Gly	Asp	Arg	Ser	Ile	130	135	140	
Met	Gln	Ser	Gln	Ser	Leu	Met	Leu	Glu	Leu	Arg	Glu	Gln	Asp	Gln	Val	145	150	155	160
Trp	Val	Arg	Leu	Tyr	Lys	Gly	Glu	Arg	Glu	Asn	Ala	Ile	Phe	Ser	Glu	165	170	175	
Glu	Leu	Asp	Thr	Tyr	Ile	Thr	Phe	Ser	Gly	Tyr	Leu	Val	Lys	His	Ala	180	185	190	
Thr	Glu	Pro														195			

<210> 2821

<211> 1746

<212> DNA

<213> Homo sapiens

<400> 2821

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120  
tgtgtactcc tcgccatggc acaactccaa acacgtttct aactgataa caagaaatat  
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240  
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300  
ctcatcaagg gccagtttct tcgaatgccc ttggacaaac acatggaaat ggaagacatc  
360  
tcatcagaag aagttgtgga aatagaatac gtggagaagt atactgcacc ccagccagag  
420  
caatgcatgt tccatgatga ctggatcagt tcaattaaag gggcagagga atggatcttg  
480  
actggttctt atggttaagac ttctcggatc tggctcttgg aaggaaagtc aataatgaca  
540  
attgtgggac atacggatgt tgtaaaagat gtggcctggg tgaaaaaaga tagtttgtcc  
600  
tgcttattan ttgagtgtt ctatggatca gactattctc ttatgggagt ggaatgtaga  
660  
gagaaacaaa gtgaaagccc tacactgctg nntagaggtc atgctggaag tgtagattct  
720  
atagctgttg atggctcagg aactaaatth tgcagtggct cctgggataa gatgctaaag  
780  
atctggtcta cagtccttac agatgaagaa gatgaaatgg aggagtccac aaatcgacca  
840  
agaaagaaac agaagacaga acagttggga ctaacaagga ctcccatagt gaccctctct  
900  
ggccacatgg aggcagtttc ctcaattctg tggtcagatg ctgaagaaat ctgcagtgc  
960  
tcttgggacc atacaattag agtgtgggat gttgagtctg gcagtcttaa gtcaactttg  
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1080  
ggaagcagag ataggcatat cagactgtgg gatccccgaa ctaaagatgg ttctttggtg  
1140  
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1200  
gaacagcagc tgatttcagg atcttttagat aacattgtta agctgtggga tacaagaagt  
1260  
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1380  
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1500  
gccttttgaa gtttatataa tgttttcacc cttcataaca gctaacttat cactttttct  
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1620  
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1680

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1740

cctagg

1746

<210> 2822

<211> 424

<212> PRT

<213> Homo sapiens

<400> 2822

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Val	Asp	Asp	Val	Pro	Phe	Ser	Ile	Pro	Ala	Thr	Ser	Glu	Val	Ala	Asp
			20					25				30			
Leu	Ser	Asn	Ile	Ile	Asn	Lys	Leu	Leu	Glu	Thr	Lys	Asn	Glu	Leu	His
		35				40					45				
Lys	His	Val	Glu	Phe	Asp	Phe	Leu	Ile	Lys	Gly	Gln	Phe	Leu	Arg	Met
	50				55					60					
Pro	Leu	Asp	Lys	His	Met	Glu	Met	Glu	Asp	Ile	Ser	Ser	Glu	Glu	Val
65					70				75					80	
Val	Glu	Ile	Glu	Tyr	Val	Glu	Lys	Tyr	Thr	Ala	Pro	Gln	Pro	Glu	Gln
			85					90					95		
Cys	Met	Phe	His	Asp	Asp	Trp	Ile	Ser	Ser	Ile	Lys	Gly	Ala	Glu	Glu
		100					105					110			
Trp	Ile	Leu	Thr	Gly	Ser	Tyr	Gly	Lys	Thr	Ser	Arg	Ile	Trp	Ser	Leu
		115					120					125			
Glu	Gly	Lys	Ser	Ile	Met	Thr	Ile	Val	Gly	His	Thr	Asp	Val	Val	Lys
	130					135				140					
Asp	Val	Ala	Trp	Val	Lys	Lys	Asp	Ser	Leu	Ser	Cys	Leu	Leu	Xaa	Glu
145					150				155					160	
Cys	Phe	Tyr	Gly	Ser	Asp	Tyr	Ser	Leu	Met	Gly	Val	Glu	Cys	Arg	Glu
			165					170					175		
Lys	Gln	Ser	Glu	Ser	Pro	Thr	Leu	Leu	Xaa	Arg	Gly	His	Ala	Gly	Ser
		180					185					190			
Val	Asp	Ser	Ile	Ala	Val	Asp	Gly	Ser	Gly	Thr	Lys	Phe	Cys	Ser	Gly
	195						200					205			
Ser	Trp	Asp	Lys	Met	Leu	Lys	Ile	Trp	Ser	Thr	Val	Pro	Thr	Asp	Glu
	210					215					220				
Glu	Asp	Glu	Met	Glu	Glu	Ser	Thr	Asn	Arg	Pro	Arg	Lys	Lys	Gln	Lys
225					230				235					240	
Thr	Glu	Gln	Leu	Gly	Leu	Thr	Arg	Thr	Pro	Ile	Val	Thr	Leu	Ser	Gly
			245					250					255		
His	Met	Glu	Ala	Val	Ser	Ser	Val	Leu	Trp	Ser	Asp	Ala	Glu	Glu	Ile
		260						265					270		
Cys	Ser	Ala	Ser	Trp	Asp	His	Thr	Ile	Arg	Val	Trp	Asp	Val	Glu	Ser
	275						280					285			
Gly	Ser	Leu	Lys	Ser	Thr	Leu	Thr	Gly	Asn	Lys	Val	Phe	Asn	Cys	Ile
	290					295				300					
Ser	Tyr	Ser	Pro	Leu	Cys	Lys	Arg	Leu	Ala	Ser	Gly	Ser	Thr	Asp	Arg
305					310				315					320	
His	Ile	Arg	Leu	Trp	Asp	Pro	Arg	Thr	Lys	Asp	Gly	Ser	Leu	Val	Ser
			325					330					335		
Leu	Ser	Leu	Thr	Ser	His	Thr	Gly	Trp	Val	Thr	Ser	Val	Lys	Trp	Ser



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          340          345          350
Pro Thr His Glu Gln Gln Leu Ile Ser Gly Ser Leu Asp Asn Ile Val
          355          360          365
Lys Leu Trp Asp Thr Arg Ser Cys Lys Ala Pro Leu Tyr Asp Leu Ala
          370          375          380
Ala His Glu Asp Lys Val Leu Ser Val Asp Trp Thr Asp Thr Gly Leu
385          390          395          400
Leu Leu Ser Gly Gly Ala Asp Asn Lys Leu Tyr Ser Tyr Arg Tyr Ser
          405          410          415
Pro Thr Thr Ser His Val Gly Ala
          420

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&lt;210&gt; 2823

&lt;211&gt; 461

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2823

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120
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180
cagccggaga agctggccct gtgtgggcct gggcctgtag gggttcccag tggccttgcg
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300
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360
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420
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461

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&lt;210&gt; 2824

&lt;211&gt; 81

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2824

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Met Cys Val Ser Pro Ser Ser Pro Cys Pro Arg Gly Phe Ala Trp Leu
1          5          10          15
Asp Gln Val Pro Ser Ser Ser Leu Ala Pro Gln Ser His Trp Glu Thr
          20          25          30
Leu Gln Ala Gln Ala His Thr Gly Pro Ala Ser Pro Ala Ala Leu Pro
          35          40          45
Lys Gly Asp Ala Cys Asp Cys Val Cys Leu Pro Thr Gly Val Thr Thr
          50          55          60
His Pro Arg Pro Pro Glu Pro Gln His Glu Gly Ser Ala Pro Phe Pro
65          70          75          80
His

```

&lt;210&gt; 2825

&lt;211&gt; 1520

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2825

tgtctaacac ttgcttgcta caaaggccat ttggatatgg ttcgctttct acttgaagct  
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120  
gatggacatg tagaggtggc acgtttgctt ttggatagtg gtgctcaagt gaacatgcct  
180  
gcagattcat ttgaatctcc attgacgcta gctgcctgtg gaggacatgt tgaattggca  
240  
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360  
agcnaaatat caatgcacag acagaagaaa ctcaagaaac tgctcttgac tctggcttgc  
420  
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480  
gggtgttcta cccctttaat ggaagctgct caagaggggc atttggagtt agttaataac  
540  
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600  
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660  
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720  
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1020  
ctttcagccc ctccaccaga tgtcactcag ttaactcccc catcccacga tttaaatagg  
1080  
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1140  
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1200  
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1260  
ccagagagca ttgtagaaga ggctcaggga aagttaacag aactggaaca gaggataaaa  
1320  
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1380  
accaaggaga agatcgagga gctcaacaaa acaagggagg aacaaattca gaagaaacaa  
1440

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 1500  
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 1520

<210> 2826

<211> 506

<212> PRT

<213> Homo sapiens

<400> 2826

Cys	Leu	Thr	Leu	Ala	Cys	Tyr	Lys	Gly	His	Leu	Asp	Met	Val	Arg	Phe
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Leu	Leu	Glu	Ala	Gly	Ala	Asp	Gln	Glu	His	Lys	Thr	Asp	Glu	Met	His
		20					25						30		
Thr	Ala	Leu	Met	Glu	Ala	Cys	Met	Asp	Gly	His	Val	Glu	Val	Ala	Arg
		35					40					45			
Leu	Leu	Leu	Asp	Ser	Gly	Ala	Gln	Val	Asn	Met	Pro	Ala	Asp	Ser	Phe
	50					55					60				
Glu	Ser	Pro	Leu	Thr	Leu	Ala	Ala	Cys	Gly	Gly	His	Val	Glu	Leu	Ala
65					70					75					80
Ala	Leu	Leu	Ile	Glu	Arg	Gly	Ala	Asn	Leu	Glu	Glu	Val	Asn	Asp	Glu
				85					90					95	
Gly	Tyr	Thr	Pro	Leu	Met	Glu	Ala	Ala	Arg	Glu	Gly	His	Glu	Glu	Met
			100					105						110	
Val	Ala	Leu	Leu	Leu	Ser	Thr	Arg	Ser	Xaa	Ile	Ser	Met	His	Arg	Gln
		115					120					125			
Lys	Lys	Leu	Lys	Lys	Leu	Leu	Leu	Thr	Leu	Ala	Cys	Cys	Gly	Gly	Phe
	130					135					140				
Leu	Glu	Val	Ala	Asp	Phe	Leu	Ile	Lys	Ala	Gly	Ala	Asp	Ile	Glu	Leu
145					150					155					160
Gly	Cys	Ser	Thr	Pro	Leu	Met	Glu	Ala	Ala	Gln	Glu	Gly	His	Leu	Glu
				165					170					175	
Leu	Val	Lys	Tyr	Leu	Leu	Ala	Ala	Gly	Ala	Asn	Val	His	Ala	Thr	Thr
		180						185						190	
Ala	Thr	Gly	Asp	Thr	Ala	Leu	Thr	Tyr	Ala	Cys	Glu	Asn	Gly	His	Thr
		195					200					205			
Asp	Val	Ala	Asp	Val	Leu	Leu	Gln	Ala	Gly	Ala	Asp	Leu	Asp	Lys	Gln
	210					215					220				
Glu	Asp	Met	Lys	Thr	Ile	Leu	Glu	Gly	Ile	Asp	Pro	Ala	Lys	His	Leu
225					230					235					240
Glu	His	Glu	Ser	Glu	Gly	Gly	Arg	Thr	Pro	Leu	Met	Lys	Ala	Ala	Arg
				245					250					255	
Ala	Gly	His	Val	Cys	Thr	Val	Gln	Phe	Leu	Ile	Ser	Lys	Gly	Ala	Asn
		260						265					270		
Val	Asn	Arg	Thr	Thr	Ala	Asn	Asn	Asp	His	Thr	Val	Leu	Ser	Leu	Ala
		275					280					285			
Cys	Ala	Gly	Gly	His	Leu	Ala	Val	Val	Glu	Leu	Leu	Leu	Ala	His	Gly
	290					295					300				
Ala	Asp	Pro	Thr	His	Arg	Leu	Lys	Asp	Gly	Ser	Thr	Met	Leu	Ile	Glu
305					310					315					320
Ala	Ala	Lys	Gly	Gly	His	Thr	Ser	Val	Val	Cys	Tyr	Leu	Leu	Asp	Tyr
				325					330					335	
Pro	Asn	Asn	Leu	Leu	Ser	Ala	Pro	Pro	Pro	Asp	Val	Thr	Gln	Leu	Thr

340 345 350  
 Pro Pro Ser His Asp Leu Asn Arg Ala Pro Arg Val Pro Val Gln Ala  
 355 360 365  
 Leu Pro Met Val Val Pro Pro Gln Glu Pro Asp Lys Pro Pro Ala Asn  
 370 375 380  
 Val Ala Thr Thr Leu Pro Ile Arg Asn Lys Ala Ala Ser Lys Gln Lys  
 385 390 395 400  
 Ser Ser Ser His Leu Pro Ala Asn Ser Gln Asp Val Gln Gly Tyr Ile  
 405 410 415  
 Thr Asn Gln Ser Pro Glu Ser Ile Val Glu Glu Ala Gln Gly Lys Leu  
 420 425 430  
 Thr Glu Leu Glu Gln Arg Ile Lys Glu Ala Ile Glu Lys Asn Ala Gln  
 435 440 445  
 Leu Gln Ser Leu Glu Leu Ala His Ala Asp Gln Leu Thr Lys Glu Lys  
 450 455 460  
 Ile Glu Glu Leu Asn Lys Thr Arg Glu Glu Gln Ile Gln Lys Lys Gln  
 465 470 475 480  
 Lys Ile Leu Glu Glu Leu Gln Lys Val Glu Arg Glu Leu Gln Leu Lys  
 485 490 495  
 Thr Gln Gln Gln Leu Lys Lys Gln Tyr Leu  
 500 505

&lt;210&gt; 2827

&lt;211&gt; 481

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2827

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 120  
 ctgctgcacc tgtgtgtcca gcagcctctt cagctgctgc aggtggaatt cttgcgtctg  
 180  
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 240  
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 420  
 ctgggtgcgc tcttctgttc tcacaactgc ctctctgagc tgctgaggc tctgggggcc  
 480  
 c  
 481

&lt;210&gt; 2828

&lt;211&gt; 160

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2828

Arg Glu Ala Ala Ala Ala Ala Gly Asp Ala Ser Glu Asp Ser Asp Ala

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&lt;210&gt; 2829

&lt;211&gt; 3648

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2829

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&lt;210&gt; 2830

&lt;211&gt; 668

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2830

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&lt;400&gt; 2831

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 Ala Pro Lys Arg Val Glu Ile Gln Met Pro Lys Pro Ala Glu Ala Pro  
 210 215 220  
 Thr Ala Pro Ser Pro Ala Gln Thr Leu Glu Asn Ser Glu Pro Ala Pro  
 225 230 235 240  
 Val Ser Gln Leu Gln Ser Arg Leu Glu Pro Lys Pro Gln Pro Pro Val  
 245 250 255  
 Ala Glu Ala Thr Pro Arg Ser Gln Glu Ala Thr Glu Ala Ala Pro Ser  
 260 265 270  
 Cys Val Gly Asp Met Ala Asp Thr Pro Arg Asp Ala Gly Leu Lys Gln  
 275 280 285  
 Ala Pro Ala Ser Arg Asn Glu Lys Ala Pro Val Asp Phe Gly Tyr Val  
 290 295 300  
 Gly Ile Asp Ser Ile Leu Glu Gln Met Arg Arg Lys Ala Met Lys Gln  
 305 310 315 320  
 Gly Phe Glu Phe Asn Ile Met Val Val Gly Gln Ser Gly Leu Gly Lys  
 325 330 335  
 Ser Thr Leu Ile Asn Thr Leu Phe Lys Ser Lys Ile Ser Arg Lys Ser  
 340 345 350  
 Val Gln Pro Thr Ser Glu Glu Arg Ile Pro Lys Thr Ile Glu Ile Lys  
 355 360 365  
 Ser Ile Thr His Asp Ile Glu Glu Lys Gly Val Arg Met Lys Leu Thr

```

      370              375              380
Val Ile Asp Thr Pro Gly Phe Gly Asp His Ile Asn Asn Glu Asn Cys
385              390              395              400
Trp Gln Pro Ile Met Lys Phe Ile Asn Asp Gln Tyr Glu Lys Tyr Leu
      405              410              415
Gln Glu Glu Val Asn Ile Asn Arg Lys Lys Arg Ile Pro Asp Thr Arg
      420              425              430
Val His Cys Cys Leu Tyr Phe Ile Pro Ala Thr Gly His Ser Leu Arg
      435              440              445
Pro Leu Asp Ile Glu Phe Met Lys Arg Leu Ser Lys Val Val Asn Ile
      450              455              460
Val Pro Val Ile Ala Lys Ala Asp Thr Leu Thr Leu Glu Glu Arg Val
465              470              475              480
His Phe Lys Gln Arg Ile Thr Ala Asp Leu Leu Ser Asn Gly Ile Asp
      485              490              495
Val Tyr Pro Gln Lys Glu Phe Asp Glu Asp Ser Glu Asp Arg Leu Val
      500              505              510
Asn Glu Lys Phe Arg Glu Met Ile Pro Phe Ala Val Val Gly Ser Asp
      515              520              525
His Glu Tyr Gln Val Asn Gly Lys Arg Ile Leu Gly Arg Lys Thr Lys
      530              535              540
Trp Gly Thr Ile Glu Val Glu Asn Thr Thr His Cys Glu Phe Ala Tyr
545              550              555              560
Leu Arg Asp Leu Leu Ile Arg Thr His Met Gln Asn Ile Lys Asp Ile
      565              570              575
Thr Ser Ser Ile His Phe Glu Ala Tyr Arg Val Lys Arg Leu Asn Glu
      580              585              590
Gly Ser Ser Ala Met Ala Asn Gly Val Glu Glu Lys Glu Pro Glu Ala
      595              600              605
Pro Glu Met
      610

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&lt;210&gt; 2833

&lt;211&gt; 420

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2833

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nncggcagcc atgttgacg tggtcagcac aggggccggc accacggggt tatcgaagca
60
gctgtcaaga tgctggggtc cctgtgttg aggagaaaag cactggcgcc acggctactc
120
ctccggctgc tcaggtcccc aacgctccgg ggccatggag gtgcttccgg ccggaatgtg
180
actactggga gtctcgggga gccgcagtgg ctgagggtag ccaccggggg gcgccctgga
240
acatcgccgg ccttgttctc cggacgtggg gcagccaccg gggggcgcca gggaggacgc
300
ttcgatacca aatgcctcgc ggctgccact tggggacgcc ttcttggtcc cgaagaaaca
360
ctcccaggac aggacagctg gaacggggtc cccagcaggg ccggactggg catgtgcgcc
420

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&lt;210&gt; 2834

<211> 117  
 <212> PRT  
 <213> Homo sapiens

<400> 2834

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Met Leu Gly Ser Leu Val Leu Arg Arg Lys Ala Leu Ala Pro Arg Leu
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Leu Leu Arg Leu Leu Arg Ser Pro Thr Leu Arg Gly His Gly Gly Ala
 20          25          30
Ser Gly Arg Asn Val Thr Thr Gly Ser Leu Gly Glu Pro Gln Trp Leu
 35          40          45
Arg Val Ala Thr Gly Gly Arg Pro Gly Thr Ser Pro Ala Leu Phe Ser
 50          55          60
Gly Arg Gly Ala Ala Thr Gly Gly Arg Gln Gly Gly Arg Phe Asp Thr
 65          70          75          80
Lys Cys Leu Ala Ala Thr Trp Gly Arg Leu Pro Gly Pro Glu Glu
 85          90          95
Thr Leu Pro Gly Gln Asp Ser Trp Asn Gly Val Pro Ser Arg Ala Gly
100         105         110
Leu Gly Met Cys Ala
115

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<210> 2835  
 <211> 938  
 <212> DNA  
 <213> Homo sapiens

<400> 2835

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gcccaaggcg ggggagtgagg gaagagaggg aagggagagc cccgcagga agtacatgaa
120
tgagtgggtt actgctgagg gcaactggga ctccatctctg ctgggcatcc tctgagagtt
180
tatgtagaat acacttcaga attgtctctg tcaaggacaa tgaagctgag gtcctgctcc
240
ttattgactc agggttgctg ctctggggga cattaacccc ccaacacttc tagcttgccc
300
agtgcactga ctgagcacac agctgtggcc accagagaac ctctttgggc tgtgatacag
360
gaaaccatcg gtgtgcatgg taactctcta gcagtgtcct tcatgccggg acatggggac
420
acgggcaggc actgctggca tctgctaacc cggaggccc ataacttcaga accggtcagc
480
tgggccaagg cctctctaag gccagcggc tctcatgggc aaatgtcagg tgacacagag
540
tcagagaccc tgagtgtgag aggggaagat attggtgaag acctgttctc tgaggccctg
600
ggccgggcag tggggcagtg ggcgggggccc aagctgctgg accatggctg tgtggagagc
660
agcattctgg attcctctgc gggctctgct cccactacg aggtgtttgt ggcgctgagg
720
gggctgagga atctgtcaga ggaaaatcga gacaagctgg accactgcct tcaggaagcc
780

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tctccccgct acaagtcctt gcggttcttg ggcagcgtgg gccctgcaga gtccacctgg  
 840  
 tgggtgtcctg agtcaagtcc tgccccaccg cccagctccc cccagaggcc acctcgcccc  
 900  
 tccctctggg acctctccgg atggggagtc cttggcca  
 938

<210> 2836

<211> 178

<212> PRT

<213> Homo sapiens

<400> 2836

Met	Pro	Gly	His	Gly	Asp	Thr	Gly	Arg	His	Cys	Trp	His	Leu	Leu	Thr
1			5					10					15		
Pro	Glu	Ala	His	Thr	Ser	Glu	Pro	Val	Ser	Trp	Ala	Lys	Ala	Ser	Leu
			20					25					30		
Arg	Pro	Ser	Gly	Ser	His	Gly	Gln	Met	Ser	Gly	Asp	Thr	Glu	Ser	Glu
			35				40					45			
Thr	Leu	Ser	Val	Arg	Gly	Glu	Asp	Ile	Gly	Glu	Asp	Leu	Phe	Ser	Glu
			50				55				60				
Ala	Leu	Gly	Arg	Ala	Val	Gly	Gln	Trp	Ala	Gly	Ala	Lys	Leu	Leu	Asp
65					70				75					80	
His	Gly	Cys	Val	Glu	Ser	Ser	Ile	Leu	Asp	Ser	Ser	Ala	Gly	Ser	Ala
			85					90						95	
Pro	His	Tyr	Glu	Val	Phe	Val	Ala	Leu	Arg	Gly	Leu	Arg	Asn	Leu	Ser
			100					105					110		
Glu	Glu	Asn	Arg	Asp	Lys	Leu	Asp	His	Cys	Leu	Gln	Glu	Ala	Ser	Pro
			115				120					125			
Arg	Tyr	Lys	Ser	Leu	Arg	Phe	Trp	Gly	Ser	Val	Gly	Pro	Ala	Glu	Ser
			130				135					140			
Thr	Trp	Trp	Cys	Pro	Glu	Ser	Ser	Pro	Ala	Pro	Pro	Pro	Ser	Ser	Pro
145					150				155					160	
Gln	Arg	Pro	Pro	Arg	Pro	Ser	Leu	Trp	Asp	Leu	Ser	Gly	Trp	Gly	Val
			165					170						175	

Leu Gly

<210> 2837

<211> 1250

<212> DNA

<213> Homo sapiens

<400> 2837

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 120  
 tggaagatc tggcgatgac ctacaaacag agggcagaaa atacgaaga ggaactccga  
 180  
 gaattccagg aggggaagccg agaatatgaa gctgaattgg agacgcagct gcaacaaatt  
 240  
 gaaaccagga acagagacct cctgtccgaa aataaccgcc ttcgcatgga gctggaaacc  
 300

atcaaggaga agtttgaagt gcagcactct gaaggctacc ggcatatctc agccttggag  
 360  
 gatgacctcg cgcagaccaa agccattaaa gaccaattgc agaaatacat cagagagctg  
 420  
 gagcaagcaa atgacgccct ggaaagagcc aagcgcgcca cgatcatgtc tctcgaagac  
 480  
 tttgagcagc gcttgaatca ggccatcgaa agaaatgcct tcctggaaag tgaacttgat  
 540  
 gaaaaagaga atctcctgga atctgttcag agactgaagg atgaagccag agatttgcgg  
 600  
 caggaactgg ccgtgcagca gaagcaggag aaacccagga ccccatgcc cagctcagt  
 660  
 gaagctgaga ggacagacac agctgtgcag gccacgggct ccgtgccgtc cagccccatt  
 720  
 gctcaccgag gacccagctc aagtttaaac acacctggga gcttcagacg tggcctggac  
 780  
 gacntccacc gggggacccc cctcacacct ggggccgga tatcagccct caacattgtg  
 840  
 ggagacctac tgcggaaagt cggggcactg gagtccaaac tcgcttcctg ccggaaccte  
 900  
 gtgtacgatc agtccccaaa ccgaacaggt ggcccagcct ctgggcggag cagcaagaac  
 960  
 agagatggcg gggagagacg gccaagcagc accagcgtgc ctttgggtga taaggggtca  
 1020  
 gtaccttcta ataaacctct cgctggcggg gagaacccgc ctgccccagg caagagacac  
 1080  
 tcacccccag cccacagcca tgtgtctttt taaattatag gattatttca gcaaacctta  
 1140  
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 1200  
 tagagagagg gtcttgtttt gtgagacagg gtctcgctct gtcacctagg  
 1250

&lt;210&gt; 2838

&lt;211&gt; 370

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens.

&lt;400&gt; 2838

Xaa	Leu	Pro	Ser	Ser	Pro	Leu	Leu	Glu	His	His	Ala	Thr	Arg	Arg	Val
1				5					10					15	
Ile	Ser	Ser	Pro	Val	Phe	Thr	Met	Glu	Asp	Ser	Gly	Lys	Thr	Phe	Ser
			20					25					30		
Ser	Glu	Glu	Glu	Glu	Ala	Asn	Tyr	Trp	Lys	Asp	Leu	Ala	Met	Thr	Tyr
		35				40					45				
Lys	Gln	Arg	Ala	Glu	Asn	Thr	Gln	Glu	Glu	Leu	Arg	Glu	Phe	Gln	Glu
		50			55					60					
Gly	Ser	Arg	Glu	Tyr	Glu	Ala	Glu	Leu	Glu	Thr	Gln	Leu	Gln	Gln	Ile
65				70					75					80	
Glu	Thr	Arg	Asn	Arg	Asp	Leu	Leu	Ser	Glu	Asn	Asn	Arg	Leu	Arg	Met
			85					90					95		
Glu	Leu	Glu	Thr	Ile	Lys	Glu	Lys	Phe	Glu	Val	Gln	His	Ser	Glu	Gly
			100				105						110		
Tyr	Arg	Gln	Ile	Ser	Ala	Leu	Glu	Asp	Asp	Leu	Ala	Gln	Thr	Lys	Ala



115	120	125
Ile Lys Asp Gln Leu Gln Lys Tyr Ile Arg Glu Leu Glu Gln Ala Asn		
130	135	140
Asp Ala Leu Glu Arg Ala Lys Arg Ala Thr Ile Met Ser Leu Glu Asp		
145	150	155
Phe Glu Gln Arg Leu Asn Gln Ala Ile Glu Arg Asn Ala Phe Leu Glu		
165	170	175
Ser Glu Leu Asp Glu Lys Glu Asn Leu Leu Glu Ser Val Gln Arg Leu		
180	185	190
Lys Asp Glu Ala Arg Asp Leu Arg Gln Glu Leu Ala Val Gln Gln Lys		
195	200	205
Gln Glu Lys Pro Arg Thr Pro Met Pro Ser Ser Val Glu Ala Glu Arg		
210	215	220
Thr Asp Thr Ala Val Gln Ala Thr Gly Ser Val Pro Ser Thr Pro Ile		
225	230	235
Ala His Arg Gly Pro Ser Ser Ser Leu Asn Thr Pro Gly Ser Phe Arg		
245	250	255
Arg Gly Leu Asp Asp Xaa His Arg Gly Thr Pro Leu Thr Pro Ala Ala		
260	265	270
Arg Ile Ser Ala Leu Asn Ile Val Gly Asp Leu Leu Arg Lys Val Gly		
275	280	285
Ala Leu Glu Ser Lys Leu Ala Ser Cys Arg Asn Leu Val Tyr Asp Gln		
290	295	300
Ser Pro Asn Arg Thr Gly Gly Pro Ala Ser Gly Arg Ser Ser Lys Asn		
305	310	315
Arg Asp Gly Gly Glu Arg Arg Pro Ser Ser Thr Ser Val Pro Leu Gly		
325	330	335
Asp Lys Gly Ser Val Pro Ser Asn Lys Pro Leu Ala Gly Gly Glu Asn		
340	345	350
Pro Pro Ala Pro Gly Lys Arg His Ser Pro Pro Ala His Ser His Val		
355	360	365
Ser Phe		
370		

&lt;210&gt; 2839

&lt;211&gt; 606

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2839

attctgaatc tgtgcaagat tcacaagatg cattctttct tggactacat catgggtggc  
 60  
 tgccaaatcc agtttacagt agctatagat ttcgccgcca caaacgggga cccaggaac  
 120  
 agctgttcct tgcactacat ccacccttac caaccaatg agtatctgaa agctttggta  
 180  
 gctgtggggg agatttgcca agactatgac agtgacaaaa tgttccttgc ctttgggttt  
 240  
 ggcgccagga tacctccaga gtacacggtc tctcatgact ttgcaatcaa ctttaatgaa  
 300  
 gacaaccag aatgtgcagg aattcaagga gttgtggaag cctatcagag ctgtcttcct  
 360  
 aagctccaac tctacgggtcc caccaacatt gccccatca tccagaaggt tgccaagtca  
 420

gcgtcagagg aaactaacac caaagaggca tcgcaatact tcatcctgct gatcctgaca  
 480  
 gatgggtgta tcacagacat gggcgacacc cgggaggcca ttgtccatgc ctcccacctc  
 540  
 cccatgtcag tcatcatcgt gggagtaggg aacgctgact tcagtacat gcagatgctg  
 600  
 gacggg  
 606

<210> 2840

<211> 202

<212> PRT

<213> Homo sapiens

<400> 2840

Ile	Leu	Asn	Leu	Cys	Lys	Ile	His	Lys	Met	His	Ser	Phe	Leu	Asp	Tyr
1				5					10					15	
Ile	Met	Gly	Gly	Cys	Gln	Ile	Gln	Phe	Thr	Val	Ala	Ile	Asp	Phe	Ala
			20					25					30		
Ala	Thr	Asn	Gly	Asp	Pro	Arg	Asn	Ser	Cys	Ser	Leu	His	Tyr	Ile	His
		35					40					45			
Pro	Tyr	Gln	Pro	Asn	Glu	Tyr	Leu	Lys	Ala	Leu	Val	Ala	Val	Gly	Glu
	50					55					60				
Ile	Cys	Gln	Asp	Tyr	Asp	Ser	Asp	Lys	Met	Phe	Pro	Ala	Phe	Gly	Phe
65					70					75				80	
Gly	Ala	Arg	Ile	Pro	Pro	Glu	Tyr	Thr	Val	Ser	His	Asp	Phe	Ala	Ile
			85					90					95		
Asn	Phe	Asn	Glu	Asp	Asn	Pro	Glu	Cys	Ala	Gly	Ile	Gln	Gly	Val	Val
			100					105					110		
Glu	Ala	Tyr	Gln	Ser	Cys	Leu	Pro	Lys	Leu	Gln	Leu	Tyr	Gly	Pro	Thr
		115					120					125			
Asn	Ile	Ala	Pro	Ile	Ile	Gln	Lys	Val	Ala	Lys	Ser	Ala	Ser	Glu	Glu
	130					135					140				
Thr	Asn	Thr	Lys	Glu	Ala	Ser	Gln	Tyr	Phe	Ile	Leu	Leu	Ile	Leu	Thr
145				150						155				160	
Asp	Gly	Val	Ile	Thr	Asp	Met	Gly	Asp	Thr	Arg	Glu	Ala	Ile	Val	His
			165					170					175		
Ala	Ser	His	Leu	Pro	Met	Ser	Val	Ile	Ile	Val	Gly	Val	Gly	Asn	Ala
			180					185					190		
Asp	Phe	Ser	Asp	Met	Gln	Met	Leu	Asp	Gly						
		195					200								

<210> 2841

<211> 2065

<212> DNA

<213> Homo sapiens

<400> 2841

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 120  
 gaagggccag ttcaggtggc cggagctcct gagctgccct aggggactgc tgtgggtctg  
 180

agggtggtgat gtccccacg gctgcctgcg cctgagcccc cacgcatcca ccctggggc  
240  
cactctgctg ttcaggagca cccacccgtg tcctcgacca tgagcagccc ccagcttac  
300  
cctggcatca ggatctcagg gtgccggggc cttggagcag aaggcagcaa tgcagagtcc  
360  
ctggacaggc tcctgccacc tgtgggcact gggcgctctc cccggaagcg gaccaccagc  
420  
cagtgcgaagt cagagcctcc cctgctgcgt acaagcaagc gtaccatcta caccgccggg  
480  
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540  
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660  
caccaggtgc tgactgagca gcagcaggaa caggccgcac acaacaactt caacttcgac  
720  
caccagatg cctttgactt cgacctcatc atttccacc tcaagaagct gaagcagggg  
780  
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840  
acactgtatg gtgcaaactg catcatcttt gagggcatca tggcctttgc tgacaagaca  
900  
ctgttgagc tcctggacat gaagatcttt gtggacacag actccgacat ccgctggta  
960  
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1020  
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1080  
gacatcgagg tccccagagg gagcggaac acggtggcca tcgacctgat tgtgcagcac  
1140  
gtgcacagcc agctggagga gcgtgaactc agcgtcaggg ctgcgctggc ctcgccacac  
1200  
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1260  
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1320  
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1380  
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1440  
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1680  
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1740  
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1800

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 1860  
 cccgatggca gtgacgagga ggaagtggcc tacacgggtt agctgcccag tgagccatcc  
 1920  
 cgtccccacc accctcctcc tgcctcctga cccaggactg ctgaatacaa agatgttaat  
 1980  
 ttttaaaatg ttactagtat aatttattct atgcatttta taaaataaat aaagctttag  
 2040  
 aaaaatgaaa aaaaaaaaaa aaaaa  
 2065

<210> 2842

<211> 540

<212> PRT

<213> Homo sapiens

<400> 2842

Met	Ser	Ser	Pro	Pro	Ala	Tyr	Pro	Gly	Ile	Arg	Ile	Ser	Gly	Cys	Arg
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Ala	Leu	Gly	Ala	Glu	Gly	Ser	Asn	Ala	Glu	Ser	Leu	Asp	Arg	Leu	Leu
			20					25					30		
Pro	Pro	Val	Gly	Thr	Gly	Arg	Ser	Pro	Arg	Lys	Arg	Thr	Thr	Ser	Gln
			35				40						45		
Cys	Lys	Ser	Glu	Pro	Pro	Leu	Leu	Arg	Thr	Ser	Lys	Arg	Thr	Ile	Tyr
	50					55				60					
Thr	Ala	Gly	Arg	Pro	Pro	Trp	Tyr	Asn	Glu	His	Gly	Thr	Gln	Ser	Lys
65					70					75				80	
Glu	Ala	Phe	Ala	Ile	Gly	Leu	Gly	Gly	Gly	Ser	Ala	Ser	Gly	Lys	Thr
				85				90						95	
Thr	Val	Ala	Arg	Met	Ile	Ile	Glu	Ala	Leu	Asp	Val	Pro	Trp	Val	Val
				100				105						110	
Leu	Leu	Ser	Met	Asp	Ser	Phe	Tyr	Lys	Val	Leu	His	Ser	Leu	Pro	His
			115				120					125			
Gln	Val	Leu	Thr	Glu	Gln	Gln	Gln	Glu	Gln	Ala	Ala	His	Asn	Asn	Phe
			130				135					140			
Asn	Phe	Asp	His	Pro	Asp	Ala	Phe	Asp	Phe	Asp	Leu	Ile	Ile	Ser	Thr
145					150					155				160	
Leu	Lys	Lys	Leu	Lys	Gln	Gly	Lys	Ser	Val	Lys	Val	Pro	Ile	Tyr	Asp
				165				170						175	
Phe	Thr	Thr	His	Ser	Arg	Lys	Lys	Asp	Trp	Lys	Thr	Leu	Tyr	Gly	Ala
				180				185						190	
Asn	Val	Ile	Ile	Phe	Glu	Gly	Ile	Met	Ala	Phe	Ala	Asp	Lys	Thr	Leu
			195				200					205			
Leu	Glu	Leu	Leu	Asp	Met	Lys	Ile	Phe	Val	Asp	Thr	Asp	Ser	Asp	Ile
			210				215					220			
Arg	Leu	Val	Arg	Arg	Leu	Arg	Arg	Asp	Ile	Ser	Glu	Arg	Gly	Arg	Asp
225					230					235				240	
Ile	Glu	Gly	Val	Ile	Lys	Gln	Tyr	Asn	Lys	Phe	Val	Lys	Pro	Ser	Phe
				245				250						255	
Asp	Gln	Tyr	Ile	Gln	Pro	Thr	Met	Arg	Leu	Ala	Asp	Ile	Val	Val	Pro
			260					265						270	
Arg	Gly	Ser	Gly	Asn	Thr	Val	Ala	Ile	Asp	Leu	Ile	Val	Gln	His	Val
			275				280						285		
His	Ser	Gln	Leu	Glu	Glu	Arg	Glu	Leu	Ser	Val	Arg	Ala	Ala	Leu	Ala

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      290              295              300
Ser Ala His Gln Cys His Pro Leu Pro Arg Thr Leu Ser Val Leu Lys
305              310              315              320
Ser Thr Pro Gln Val Arg Gly Met His Thr Ile Ile Arg Asp Lys Glu
              325              330              335
Thr Ser Arg Asp Glu Phe Ile Phe Tyr Ser Lys Arg Leu Met Arg Leu
              340              345              350
Leu Ile Glu His Ala Leu Ser Phe Leu Pro Phe Gln Asp Cys Val Val
              355              360              365
Gln Thr Pro Gln Gly Gln Asp Tyr Ala Gly Lys Cys Tyr Ala Gly Lys
              370              375              380
Gln Ile Thr Gly Val Ser Ile Leu Arg Ala Gly Glu Thr Met Glu Pro
385              390              395              400
Ala Leu Arg Ala Val Cys Lys Asp Val Arg Ile Gly Thr Ile Leu Ile
              405              410              415
Gln Thr Asn Gln Leu Thr Gly Glu Pro Glu Leu His Tyr Leu Arg Leu
              420              425              430
Pro Lys Asp Ile Ser Asp Asp His Val Ile Leu Met Asp Cys Thr Val
              435              440              445
Ser Thr Gly Ala Ala Ala Met Met Ala Val Arg Val Leu Leu Asp His
              450              455              460
Asp Val Pro Glu Asp Lys Ile Phe Leu Leu Ser Leu Leu Met Ala Glu
465              470              475              480
Met Gly Val His Ser Val Ala Tyr Ala Phe Pro Arg Val Arg Ile Ile
              485              490              495
Thr Thr Ala Val Asp Lys Arg Val Asn Asp Leu Phe Arg Ile Ile Pro
              500              505              510
Gly Ile Gly Asn Phe Gly Asp Arg Tyr Phe Gly Thr Asp Ala Val Pro
              515              520              525
Asp Gly Ser Asp Glu Glu Glu Val Ala Tyr Thr Gly
              530              535              540

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&lt;210&gt; 2843

&lt;211&gt; 497

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2843

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360
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<210> 2844

<211> 165

<212> PRT

<213> Homo sapiens

<400> 2844

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      20             25             30
Ser Gln Asn Thr Glu Leu Lys Thr Gln Ser Pro Glu Phe Glu Ala Gln
      35             40             45
Ser Ser Lys Phe Gln Glu Gly Ala Glu Met Leu Leu Asn Pro Glu Glu
      50             55             60
Lys Ser Pro Leu Asn Ile Ser Val Gly Val His Pro Leu Asp Ser Phe
65             70             75             80
Thr Gln Gly Phe Gly Glu Gln Pro Thr Gly Asp Leu Pro Ile Gly Pro
      85             90             95
Pro Phe Glu Met Pro Thr Gly Ala Leu Leu Ser Thr Pro Gln Phe Glu
      100            105            110
Met Leu Gln Asn Pro Leu Gly Leu Thr Gly Ala Leu Arg Gly Pro Gly
      115            120            125
Arg Arg Gly Gly Arg Ala Arg Gly Gly Gln Gly Pro Arg Pro Asn Ile
      130            135            140
Cys Gly Ile Trp Gly Lys Ser Phe Gly Arg Asp Tyr Pro Asp Pro Ala
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Gln Ala Ser Thr Pro
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<210> 2845

<211> 934

<212> DNA

<213> Homo sapiens

<400> 2845

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300
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360
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420
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480

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gtgggggaga cagggcaggg aaggtgagca gcggtctgag agtcccttgt ggcacctcgt  
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 gggcattagc caaagccgtc ctgatcccaa gggacagggc aggggaagggtg agtagtggtc  
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<210> 2846

<211> 149

<212> PRT

<213> Homo sapiens

<400> 2846

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Leu	Pro	Cys	Pro	Leu	Gly	Ser	Gly	Arg	Leu	Trp	Leu	Met	Pro	Thr	Arg
			20					25					30		
Cys	His	Lys	Gly	Leu	Ser	Asp	Arg	Cys	Ser	Pro	Ser	Leu	Pro	Cys	Leu
		35					40					45			
Pro	His	Arg	Pro	Ser	Pro	Pro	Glu	Pro	Ala	Phe	Leu	Pro	Gln	His	Leu
		50				55					60				
Pro	Ser	Leu	Ala	Thr	Gly	Tyr	Ile	Cys	Val	Asp	Cys	Leu	Ser	Leu	His
65					70					75				80	
Gly	Asn	Val	Arg	Thr	Ile	Phe	Val	Cys	Cys	Gly	Thr	Ala	Ala	Leu	Arg
			85					90						95	
Ala	Ala	Ser	Ser	Thr	Gln	Val	Ala	Leu	Asp	Thr	Asp	Cys	Thr	Gln	Gly
		100						105					110		
Glu	Leu	Gly	Leu	Ile	Thr	Pro	Leu	Thr	Arg	Gly	Glu	Thr	Leu	Gln	Leu
		115					120				125				
Glu	Val	Thr	Phe	Ile	Pro	Leu	Gln	Leu	Arg	Pro	Phe	His	Ser	Pro	Arg
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Thr	His	Arg	Gly	Ala											
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<210> 2847

<211> 2830

<212> DNA

<213> Homo sapiens

<400> 2847

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300  
tcagaagact ctgggtccag aaaagattct tcctcagagg tcttcagtga tgctgccaag  
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420  
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480  
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1740



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 1980  
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<210> 2848

<211> 856

<212> PRT

<213> Homo sapiens

<400> 2848

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			20					25					30		
Thr	Ser	Ala	Pro	Leu	Ile	Arg	Arg	Gln	Leu	Ser	His	Asp	His	Glu	Ser
			35					40					45		
Val	Gly	Pro	Pro	Ser	Leu	Asp	Ala	Gln	Pro	Asn	Ser	Lys	Thr	Glu	Arg
			50					55				60			
Ser	Lys	Ser	Tyr	Asp	Glu	Gly	Leu	Asp	Asp	Tyr	Arg	Glu	Asp	Ala	Lys

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65          70          75          80
Leu Ser Phe Lys His Val Ser Ser Leu Lys Gly Ile Lys Ile Ala Asp
          85          90          95
Ser Gln Lys Ser Ser Glu Asp Ser Gly Ser Arg Lys Asp Ser Ser Ser
          100          105          110
Glu Val Phe Ser Asp Ala Ala Lys Glu Gly Trp Leu His Phe Arg Pro
          115          120          125
Leu Val Thr Asp Lys Gly Lys Arg Val Gly Gly Ser Ile Arg Pro Trp
          130          135          140
Lys Gln Met Tyr Val Val Leu Arg Gly His Ser Leu Tyr Leu Tyr Lys
145          150          155          160
Asp Lys Arg Glu Gln Thr Thr Pro Ser Glu Glu Glu Gln Pro Ile Ser
          165          170          175
Val Asn Ala Cys Leu Ile Asp Ile Ser Tyr Ser Glu Thr Lys Arg Lys
          180          185          190
Asn Val Phe Arg Leu Thr Thr Ser Asp Cys Glu Cys Leu Phe Gln Ala
          195          200          205
Glu Asp Arg Asp Asp Met Leu Ala Trp Ile Lys Thr Ile Gln Glu Ser
          210          215          220
Ser Asn Leu Asn Glu Glu Asp Thr Gly Val Thr Asn Arg Asp Leu Ile
225          230          235          240
Ser Arg Arg Ile Lys Glu Tyr Asn Asn Leu Met Ser Lys Ala Glu Gln
          245          250          255
Leu Pro Lys Thr Pro Arg Gln Ser Leu Ser Ile Arg Gln Thr Leu Leu
          260          265          270
Gly Ala Lys Ser Glu Pro Lys Thr Gln Ser Pro His Ser Pro Lys Glu
          275          280          285
Glu Ser Glu Arg Lys Leu Leu Ser Lys Asp Asp Thr Ser Pro Pro Lys
          290          295          300
Asp Lys Gly Thr Trp Arg Lys Gly Ile Pro Ser Ile Met Arg Lys Thr
305          310          315          320
Phe Glu Lys Lys Pro Thr Ala Thr Gly Thr Phe Gly Val Arg Leu Asp
          325          330          335
Asp Cys Pro Pro Ala His Thr Asn Arg Tyr Ile Pro Leu Ile Val Asp
          340          345          350
Ile Cys Cys Lys Leu Val Glu Glu Arg Gly Leu Glu Tyr Thr Gly Ile
          355          360          365
Tyr Arg Val Pro Gly Asn Asn Ala Ala Ile Ser Ser Met Gln Glu Glu
          370          375          380
Leu Asn Lys Gly Met Ala Asp Ile Asp Ile Gln Asp Asp Lys Trp Arg
385          390          395          400
Asp Leu Asn Val Ile Ser Ser Leu Leu Lys Ser Phe Phe Arg Lys Leu
          405          410          415
Pro Glu Pro Leu Phe Thr Asn Asp Lys Tyr Ala Asp Phe Ile Glu Ala
          420          425          430
Asn Arg Lys Glu Asp Pro Leu Asp Arg Leu Lys Thr Leu Lys Arg Leu
          435          440          445
Ile His Asp Leu Pro Glu His His Tyr Glu Thr Leu Lys Phe Leu Ser
          450          455          460
Ala His Leu Lys Thr Val Ala Glu Asn Ser Glu Lys Asn Lys Met Glu
465          470          475          480
Pro Arg Asn Leu Ala Ile Val Phe Gly Pro Thr Leu Val Arg Thr Ser
          485          490          495
Glu Asp Asn Met Thr His Met Val Thr His Met Pro Asp Gln Tyr Lys

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2083

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<210> 2850

<211> 76

<212> PRT

<213> Homo sapiens

<400> 2850

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Ala	Lys	Pro	Glu	Pro	Ala	Pro	Ala	Pro	Pro	Pro	Pro	Gly	Ala	Lys	Pro
		20						25					30		
Glu	Glu	Asp	Lys	Lys	Asp	Gly	Lys	Glu	Pro	Ser	Asp	Lys	Pro	Gln	Lys
		35				40						45			
Ala	Val	Gln	Asp	His	Lys	Glu	Pro	Ser	Asp	Lys	Pro	Gln	Lys	Ala	Val
	50					55					60				
Gln	Pro	Lys	His	Glu	Val	Gly	Thr	Lys	Glu	Gly	Cys				
65					70						75				

<210> 2851

<211> 2459

<212> DNA

<213> Homo sapiens

<400> 2851

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 120  
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 180  
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 300  
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 360  
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 420  
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 480  
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<210> 2852

<211> 317

<212> PRT

<213> Homo sapiens

<400> 2852

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			20					25					30		
Leu	Tyr	Met	Leu	Val	Lys	Met	Ser	His	His	Val	Trp	Thr	Ala	Gln	Asn
		35					40					45			
Val	Asp	Pro	Ala	Ser	Phe	Leu	Ser	Thr	Thr	Leu	Gly	Asn	Val	Leu	Val
	50						55				60				
Thr	Val	Lys	Arg	Asn	Phe	Asp	Lys	Cys	Ile	Ser	Asn	Gln	Ile	Arg	Gln
65				70					75					80	
Met	Glu	Glu	Val	Lys	Ile	Ser	Lys	Lys	Ser	Lys	Val	Gly	Ile	Leu	Pro
				85					90					95	
Phe	Val	Ala	Glu	Phe	Glu	Glu	Phe	Ala	Gly	Leu	Ala	Glu	Ser	Ile	Phe
			100					105					110		
Lys	Asn	Ala	Glu	Arg	Arg	Gly	Asp	Leu	Asp	Lys	Ala	Tyr	Thr	Lys	Leu
		115					120					125			
Ile	Arg	Gly	Val	Phe	Val	Asn	Val	Glu	Lys	Val	Ala	Asn	Glu	Ser	Gln
	130						135					140			
Lys	Thr	Pro	Arg	Asp	Val	Val	Met	Met	Glu	Asn	Phe	His	His	Ile	Phe
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Ala	Thr	Leu	Ser	Arg	Leu	Lys	Ile	Ser	Cys	Leu	Glu	Ala	Glu	Lys	Lys
				165					170					175	
Glu	Ala	Lys	Gln	Lys	Tyr	Thr	Asp	His	Leu	Gln	Ser	Tyr	Val	Ile	Tyr
		180					185						190		
Ser	Leu	Gly	Gln	Pro	Leu	Glu	Lys	Leu	Asn	His	Phe	Phe	Glu	Gly	Val
		195					200					205			
Glu	Ala	Arg	Val	Ala	Gln	Gly	Ile	Arg	Glu	Glu	Glu	Val	Ser	Tyr	Gln
	210						215					220			
Leu	Ala	Phe	Asn	Lys	Gln	Glu	Leu	Arg	Lys	Val	Ile	Lys	Glu	Tyr	Pro
225				230					235					240	
Gly	Lys	Glu	Val	Lys	Lys	Gly	Leu	Asp	Asn	Leu	Tyr	Lys	Lys	Val	Asp
				245					250					255	
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<213> Homo sapiens

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Ala Ala Pro Asp Ala Thr Val Gly Thr Pro Leu Pro Thr Asn Ser Thr
225      230      235      240
Ile Glu Arg Glu Val Thr Ala Pro Arg Ala Thr Thr Leu Ser Gly Ala
      245      250      255
Leu Val Thr Val Ser Arg Asn Pro Leu Glu Glu Thr Ser Ala Leu Ser
      260      265      270
Val Glu Thr Pro Ser Tyr Val Lys Val Ser Gly Ala Ala Pro Val Ser
      275      280      285
Ile Glu Ala Gly Ser Ala Val Gly Lys Thr Thr Ser Phe Ala Gly Ser
      290      295      300
Ser Ala Ser Ser Tyr Ser Pro Ser Glu Ala Ala Leu Lys Asn Phe Thr
305      310      315      320
Pro Ser Glu Thr Pro Thr Met Asp Ile Ala Thr Lys Gly Pro Phe Pro
      325      330      335
Thr Ser Arg Asp Pro Leu Pro Ser Val Pro Pro Thr Thr Thr Asn Ser
      340      345      350
Ser Arg Gly Thr Asn Ser Thr Leu Ala Lys Ile Thr Thr Ser Ala Lys
      355      360      365
Thr Thr Met Lys Pro Pro Thr Ala Thr Pro Thr Thr Ala Arg Thr Arg
      370      375      380
Pro Thr Thr Asp Val Ser Ala Gly Glu Asn Gly Gly Ser Ser Ser Cys
385      390      395      400
Gly

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&lt;210&gt; 2857

&lt;211&gt; 1668

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2857

```

ctggttggga gttggtaggg tcgcaccggg acagcccgga agagttcggt tggggctggg
60
ggctgggagg gaggaggtga ctcggttttc tgtgtaaact tggccgcggt tgccgcagga
120
aggctagcca gagggtaatt acacaggtgt aggccggcgg ggcgggagga gggctcggga
180
ggcgagggg actggaagag ttggctgctc ccaggcacca ggtggaagaa tttccatacc
240
agccctgagg aggtgcctct gtttccagag gcgtttttgt acgaaggga ttttgaaagc
300
gaagcagaag ccgtagaatc agcggcgagc ctgttgaaag aaccacagg tgcatttcac
360
agcactctgg gcgaaaattg gatgtgaaaa tgaagccaga ccgagatact ctggatgaat
420
atattgaata tgatgcagag gagttcttgg tctctttggc cttgctgata acagaaggac
480

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gaacacctga atgttctgta aaaggctgaa cagaaagctt tcattgccct ccagcacagt  
 540  
 cttgttacct agtaactacc aaacatgaat gtagtgacaa gctggcccag tgccgccaag  
 600  
 ccagacgaac taggtctgag gtcacattgt tgtggaagaa taaccttcca atcatggtgg  
 660  
 aaatgatgct actaccagac tgctgctaca gcgatgatgg gccaccaca gaggggaattg  
 720  
 atctaaatga tcctgcgatt aagcaagatg cattattatt agaaagatgg atcttgagac  
 780  
 cagttcctcg acagaatggt gaccgattta ttgaagagaa gacgcttctg ttggctgtcc  
 840  
 gctcatttgt gtttttttct cagttaagtg catggctgag tgtttctcat ggtgctattc  
 900  
 caggaatat tctctacaga atcagtgtg ctgatgtaga cctacagtgg aatttttcac  
 960  
 agactccaat tgagcatgtg tttcctgttc ccaatgtttc tcacaatgtt gccttgaaag  
 1020  
 tcagtggta atccttgccc caaacaatct aattatccag ttttgacgtg cagtattcac  
 1080  
 actaatattg gcctttatga gaaaagaatt caacaacata aacttaaac tcatcagcac  
 1140  
 cataacccaa atgaagcaga acaatgtggt acaaacagtt cacagcgtct gtgtagcaaa  
 1200  
 caaacttga ccatggcacc tgaaagtgtg ttacatgcaa aaagtggccc aagtccagaa  
 1260  
 tatactgcag ctgtcaaaaa tatcaacta tatccaggca ctggcagtaa atctgaccat  
 1320  
 gggacatctc aagccaatat tctaggcttt agtggatatag gtgatataaa atcacaagaa  
 1380  
 acatcagtga gaactttaaa atcattttca atggttgatt ccagtatctc taaccgccag  
 1440  
 agtttctggc agtcagctgg tgagactaac cttttaatag gctctttaat tcaggagcgg  
 1500  
 caagaaatca ttgcaagaat tgctcaacat ttgattcatt gtgatccaag cacttcacat  
 1560  
 gtttctggac gtccatttaa tactcaagag tctagttcac tccattcaaa acttttccgg  
 1620  
 gtttcacaag aaaatgagaa cgtggggaaa aggtaaagaa gctttctc  
 1668

&lt;210&gt; 2858

&lt;211&gt; 220

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2858

Met Lys Pro Asp Arg Asp Thr Leu Asp Glu Tyr Phe Glu Tyr Asp Ala  
 1 5 10 15  
 Glu Glu Phe Leu Val Ser Leu Ala Leu Leu Ile Thr Glu Gly Arg Thr  
 20 25 30  
 Pro Glu Cys Ser Val Lys Gly Arg Thr Glu Ser Phe His Cys Pro Pro  
 35 40 45  
 Ala Gln Ser Cys Tyr Pro Val Thr Thr Lys His Glu Cys Ser Asp Lys



```

      50              55              60
Leu Ala Gln Cys Arg Gln Ala Arg Arg Thr Arg Ser Glu Val Thr Leu
65              70              75              80
Leu Trp Lys Asn Asn Leu Pro Ile Met Val Glu Met Met Leu Leu Pro
      85              90              95
Asp Cys Cys Tyr Ser Asp Asp Gly Pro Thr Thr Glu Gly Ile Asp Leu
      100             105             110
Asn Asp Pro Ala Ile Lys Gln Asp Ala Leu Leu Leu Glu Arg Trp Ile
      115             120             125
Leu Glu Pro Val Pro Arg Gln Asn Gly Asp Arg Phe Ile Glu Glu Lys
      130             135             140
Thr Leu Leu Leu Ala Val Arg Ser Phe Val Phe Phe Ser Gln Leu Ser
145             150             155             160
Ala Trp Leu Ser Val Ser His Gly Ala Ile Pro Arg Asn Ile Leu Tyr
      165             170             175
Arg Ile Ser Ala Ala Asp Val Asp Leu Gln Trp Asn Phe Ser Gln Thr
      180             185             190
Pro Ile Glu His Val Phe Pro Val Pro Asn Val Ser His Asn Val Ala
      195             200             205
Leu Lys Val Ser Gly Gln Ser Leu Ala Gln Thr Ile
      210             215             220

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&lt;210&gt; 2859

&lt;211&gt; 1029

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2859

```

ntgcagaagg aaattgcact cgtctcctcc gcgcccccg gacccaacac aatgcaccag
60
ccgcctgagt ccaccgccgc ggccgccgcc gctgcagaca ttagcgctag gaagatggcg
120
caccggcga tggtccctcg aagggggcagc ggtagtggca gcgcctctgc tctcaatgca
180
gcaggtaccg gcgtcggtag taatgccaca tcttcgagag attttccgcc tccgtcgctg
240
cttcagccgc cgccccctgc agcatcttct acgtcgggac cacagcctcc gcctccacaa
300
agcctgaacc tcctttcgca ggctcagctg caggcacagc ctcttgcgcc aggcggaact
360
caaatgaaaa agaaaagtgg cttccagata actagcggtta ctctgctca gatctccgct
420
agtatcagct ctaacaacag tatagcagag gacactgaga gctatgatga tctggatgaa
480
tctcacacgg aagatctctc ttcttcggag atccttgatg tgtcactttc cagggtact
540
gacttagggg agcccgaacg cagctcctca gaagagacc taaataactt ccaggaagcc
600
gagacacctg gggcagtcct tcccaaccag cccaccttc ctcagcctca tttgcctcac
660
cttcacacac agaattgtgt gatcaatggg aatgctcatc cacaccacct ccatcaccac
720
catcagattc atcatgggca ccacctccaa catggtcacc accatccatc tcatgttgct
780

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gtggccagtg catccattac tgggtgggcca ccctcaagcc cagtatctag aaaactctct  
 840  
 acaactggaa gctctgacag tatcacacca gttgcaccaa cttctgctgt atcatccagt  
 900  
 gggtcacctg catctgtaat gactaatatg cgtgctccaa gtactacagg tggaataggt  
 960  
 ataaattctg ttactggcac tagtacagta aataatgtta acattactgc tgtgggtagt  
 1020  
 ttttaattcc  
 1029

<210> 2860

<211> 343

<212> PRT

<213> Homo sapiens

<400> 2860

Xaa	Gln	Lys	Glu	Ile	Ala	Leu	Val	Ser	Ser	Ala	Pro	Pro	Gly	Pro	Asn
1				5					10					15	
Thr	Met	His	Gln	Pro	Pro	Glu	Ser	Thr	Ala	Ala	Ala	Ala	Ala	Ala	Ala
			20					25					30		
Asp	Ile	Ser	Ala	Arg	Lys	Met	Ala	His	Pro	Ala	Met	Phe	Pro	Arg	Arg
		35					40					45			
Gly	Ser	Gly	Ser	Gly	Ser	Ala	Ser	Ala	Leu	Asn	Ala	Ala	Gly	Thr	Gly
	50					55				60					
Val	Gly	Ser	Asn	Ala	Thr	Ser	Ser	Glu	Asp	Phe	Pro	Pro	Pro	Ser	Leu
65					70					75					80
Leu	Gln	Pro	Pro	Pro	Pro	Ala	Ala	Ser	Ser	Thr	Ser	Gly	Pro	Gln	Pro
				85					90					95	
Pro	Pro	Pro	Gln	Ser	Leu	Asn	Leu	Leu	Ser	Gln	Ala	Gln	Leu	Gln	Ala
			100					105					110		
Gln	Pro	Leu	Ala	Pro	Gly	Gly	Thr	Gln	Met	Lys	Lys	Lys	Ser	Gly	Phe
		115					120					125			
Gln	Ile	Thr	Ser	Val	Thr	Pro	Ala	Gln	Ile	Ser	Ala	Ser	Ile	Ser	Ser
	130						135				140				
Asn	Asn	Ser	Ile	Ala	Glu	Asp	Thr	Glu	Ser	Tyr	Asp	Asp	Leu	Asp	Glu
145					150					155				160	
Ser	His	Thr	Glu	Asp	Leu	Ser	Ser	Ser	Glu	Ile	Leu	Asp	Val	Ser	Leu
				165					170					175	
Ser	Arg	Ala	Thr	Asp	Leu	Gly	Glu	Pro	Glu	Arg	Ser	Ser	Ser	Glu	Glu
			180						185					190	
Thr	Leu	Asn	Asn	Phe	Gln	Glu	Ala	Glu	Thr	Pro	Gly	Ala	Val	Ser	Pro
		195					200					205			
Asn	Gln	Pro	His	Leu	Pro	Gln	Pro	His	Leu	Pro	His	Leu	Pro	Gln	Gln
	210					215					220				
Asn	Val	Val	Ile	Asn	Gly	Asn	Ala	His	Pro	His	His	Leu	His	His	His
225					230					235				240	
His	Gln	Ile	His	His	Gly	His	His	Leu	Gln	His	Gly	His	His	His	Pro
			245						250					255	
Ser	His	Val	Ala	Val	Ala	Ser	Ala	Ser	Ile	Thr	Gly	Gly	Pro	Pro	Ser
		260						265					270		
Ser	Pro	Val	Ser	Arg	Lys	Leu	Ser	Thr	Thr	Gly	Ser	Ser	Asp	Ser	Ile
		275					280					285			
Thr	Pro	Val	Ala	Pro	Thr	Ser	Ala	Val	Ser	Ser	Ser	Gly	Ser	Pro	Ala

290                      295                      300  
 Ser Val Met Thr Asn Met Arg Ala Pro Ser Thr Thr Gly Gly Ile Gly  
 305                      310                      315                      320  
 Ile Asn Ser Val Thr Gly Thr Ser Thr Val Asn Asn Val Asn Ile Thr  
                     325                      330                      335  
 Ala Val Gly Ser Phe Asn Ser  
                     340

<210> 2861

<211> 756

<212> DNA

<213> Homo sapiens

<400> 2861

gctagctcta gctctgcacc agcccaagaa accatctgcc tcgacgactc actagatgaa  
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 gacctttctt tccattcacc ttcactggat cttgtttctg aagcttttagc ggttatcaac  
 120  
 aatgggaaca agggccctcc agttggctca aggataagca tgccaaccac aaagcctcgt  
 180  
 ccaggactga gagaagaaaa attagcaagt atcatgagta agctgccact agctactccc  
 240  
 aaaaaactag attctactca gactacacat tcttcaagtc ttattgctgg tcacacaggg  
 300  
 ccagtaccaa agaaacccca ggatttagct catactggca tctcttcagg ccttattgct  
 360  
 ggttcttcca ttcagaaccc taaagtttct ttagaacctt tgccagccag gctacttcaa  
 420  
 caaggacttc agagggtcaag ccagattcac acttcttcct cttcacagac ccatgtctcc  
 480  
 tcttcttccc aagcccaaat tgctgcctct tctcatgctc tggaacatc cgaggcccaa  
 540  
 gatgcttctt cgtaacaca agtaacaaag gtgcaccagc attcagctgt ccagcagaac  
 600  
 tatgtgtctc cattacaggc caccatcagt aaatcccaga ccaaccccg tctgaagtta  
 660  
 agtaataatc cccaactctc ctgttcctcc tcacttatta agacttcaga taagccactt  
 720  
 atgtaccgcc ttcccttate taccctctc acgcgt  
 756

<210> 2862

<211> 252

<212> PRT

<213> Homo sapiens

<400> 2862

Ala Ser Ser Ser Ser Ala Pro Ala Gln Glu Thr Ile Cys Leu Asp Asp  
 1                      5                      10                      15  
 Ser Leu Asp Glu Asp Leu Ser Phe His Ser Pro Ser Leu Asp Leu Val  
                     20                      25                      30  
 Ser Glu Ala Leu Ala Val Ile Asn Asn Gly Asn Lys Gly Pro Pro Val  
                     35                      40                      45  
 Gly Ser Arg Ile Ser Met Pro Thr Thr Lys Pro Arg Pro Gly Leu Arg

50                      55                      60  
 Glu Glu Lys Leu Ala Ser Ile Met Ser Lys Leu Pro Leu Ala Thr Pro  
 65                      70                      75                      80  
 Lys Lys Leu Asp Ser Thr Gln Thr Thr His Ser Ser Ser Leu Ile Ala  
                     85                      90                      95  
 Gly His Thr Gly Pro Val Pro Lys Lys Pro Gln Asp Leu Ala His Thr  
                     100                      105                      110  
 Gly Ile Ser Ser Gly Leu Ile Ala Gly Ser Ser Ile Gln Asn Pro Lys  
                     115                      120                      125  
 Val Ser Leu Glu Pro Leu Pro Ala Arg Leu Leu Gln Gln Gly Leu Gln  
                     130                      135                      140  
 Arg Ser Ser Gln Ile His Thr Ser Ser Ser Ser Gln Thr His Val Ser  
 145                      150                      155                      160  
 Ser Ser Ser Gln Ala Gln Ile Ala Ala Ser Ser His Ala Leu Gly Thr  
                     165                      170                      175  
 Ser Glu Ala Gln Asp Ala Ser Ser Leu Thr Gln Val Thr Lys Val His  
                     180                      185                      190  
 Gln His Ser Ala Val Gln Gln Asn Tyr Val Ser Pro Leu Gln Ala Thr  
                     195                      200                      205  
 Ile Ser Lys Ser Gln Thr Asn Pro Val Val Lys Leu Ser Asn Asn Pro  
                     210                      215                      220  
 Gln Leu Ser Cys Ser Ser Ser Leu Ile Lys Thr Ser Asp Lys Pro Leu  
 225                      230                      235                      240  
 Met Tyr Arg Leu Pro Leu Ser Thr Pro Phe Thr Arg  
                     245                      250

&lt;210&gt; 2863

&lt;211&gt; 711

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2863

naccgacgtc gaatatccat gcagcgcgct ccgggagctg cacgngctg cgtggaaaga  
 60  
 gcgcccagcg gtggcgctgt tgtcgcccc tctcgtcgg gaagaatcgt ttgtctcct  
 120  
 gccgtgccg gaatcccagt cagaagttcc agcctgccac tgttctctga tgccatgcc  
 180  
 gcaccaactc aactgttttt tctctcctc cgtaactgtg aactgagcag gatctatggc  
 240  
 actgcatggt actgccacca caaacatctc tgttggtcct catcgtacat tctcagagt  
 300  
 cgactgagat acacacctca tccagcatat gctacctttt gcaggccaaa ggagaactgg  
 360  
 tggcagtaca cccaaggaag gagatattgt tccacaccac agaaatttta cctcacacct  
 420  
 ccacaagtca atagcatcct taaagctaata gaatacagtt tcaaagtgcc agaatttgac  
 480  
 ggcaaaaatg tcagttctat ccttggtattt gacagcaatc agctgcctgc aaatgcaccc  
 540  
 attgaggacc ggagaagtgc agcaacctgc ttgcagacca gagggatgct tttgggggtt  
 600  
 tttgatggcc atgcaggttg tgcttggtcc caggcagtca gtgaaagact cttttattat  
 660

attgctgtct ctttggtacc ccatgagact ttgctagaga ttgaaaatgc a  
711

<210> 2864

<211> 237

<212> PRT

<213> Homo sapiens

<400> 2864

Xaa Arg Arg Arg Ile Ser Met Gln Arg Ala Pro Gly Ala Ala Arg Xaa  
1 5 10 15  
Cys Val Glu Arg Ala Pro Ser Gly Gly Val Val Val Ala Pro Ser Ser  
20 25 30  
Ser Gly Arg Ile Val Trp Ser Pro Ala Val Pro Gly Ile Pro Val Arg  
35 40 45  
Ser Ser Ser Leu Pro Leu Phe Ser Asp Ala Met Pro Ala Pro Thr Gln  
50 55 60  
Leu Phe Phe Pro Leu Ile Arg Asn Cys Glu Leu Ser Arg Ile Tyr Gly  
65 70 75 80  
Thr Ala Cys Tyr Cys His His Lys His Leu Cys Cys Ser Ser Ser Tyr  
85 90 95  
Ile Pro Gln Ser Arg Leu Arg Tyr Thr Pro His Pro Ala Tyr Ala Thr  
100 105 110  
Phe Cys Arg Pro Lys Glu Asn Trp Trp Gln Tyr Thr Gln Gly Arg Arg  
115 120 125  
Tyr Ala Ser Thr Pro Gln Lys Phe Tyr Leu Thr Pro Pro Gln Val Asn  
130 135 140  
Ser Ile Leu Lys Ala Asn Glu Tyr Ser Phe Lys Val Pro Glu Phe Asp  
145 150 155 160  
Gly Lys Asn Val Ser Ser Ile Leu Gly Phe Asp Ser Asn Gln Leu Pro  
165 170 175  
Ala Asn Ala Pro Ile Glu Asp Arg Arg Ser Ala Ala Thr Cys Leu Gln  
180 185 190  
Thr Arg Gly Met Leu Leu Gly Val Phe Asp Gly His Ala Gly Cys Ala  
195 200 205  
Cys Ser Gln Ala Val Ser Glu Arg Leu Phe Tyr Tyr Ile Ala Val Ser  
210 215 220  
Leu Leu Pro His Glu Thr Leu Leu Glu Ile Glu Asn Ala  
225 230 235

<210> 2865

<211> 585

<212> DNA

<213> Homo sapiens

<400> 2865

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60  
agaagtagta gaagacaaag acagttcttt aaattcttga gaagtatgag ctctgtgtat  
120  
ctgcagtgtg aagttttgat atgtgatagc agtgaccacc agtctcgctg caatcaagggt  
180  
tgtgtctcca gaagcaaacg agacatttct tcatataaat ggaaaacaga ttccatcata  
240

ggacccattc gtctgaaaag ggatcgaagt gcaagtggca attcaggatt tcagcatgaa  
300  
acacatgcgg aagaaactcc aaaccagcct ttcaacagtg tgcattctgtt ttccttcagt  
360  
gttctagctc tgaatgtggt gactgtagcg acaatcacag tgaggcattt tgtaaatcaa  
420  
cgggcagact acaaatacca gaagctgcag aactattaac taacagggtcc aaccctaagt  
480  
gagacatggt tctccaggat gccaaaggaa atgctacctc gtggctacac atattatgaa  
540  
taaatgagga agggcctgaa agtggcacac aggcctgcaa aaaaa  
585

<210> 2866

<211> 134

<212> PRT

<213> Homo sapiens

<400> 2866

Glu	Arg	Arg	Ser	Ser	Arg	Arg	Gln	Arg	Gln	Phe	Phe	Lys	Phe	Leu	Arg
1			5					10						15	
Ser	Met	Ser	Ser	Val	Tyr	Leu	Gln	Cys	Lys	Val	Leu	Ile	Cys	Asp	Ser
			20				25						30		
Ser	Asp	His	Gln	Ser	Arg	Cys	Asn	Gln	Gly	Cys	Val	Ser	Arg	Ser	Lys
		35				40					45				
Arg	Asp	Ile	Ser	Ser	Tyr	Lys	Trp	Lys	Thr	Asp	Ser	Ile	Ile	Gly	Pro
	50					55				60					
Ile	Arg	Leu	Lys	Arg	Asp	Arg	Ser	Ala	Ser	Gly	Asn	Ser	Gly	Phe	Gln
65				70					75					80	
His	Glu	Thr	His	Ala	Glu	Glu	Thr	Pro	Asn	Gln	Pro	Phe	Asn	Ser	Val
			85					90					95		
His	Leu	Phe	Ser	Phe	Met	Val	Leu	Ala	Leu	Asn	Val	Val	Thr	Val	Ala
			100					105					110		
Thr	Ile	Thr	Val	Arg	His	Phe	Val	Asn	Gln	Arg	Ala	Asp	Tyr	Lys	Tyr
		115					120					125			
Gln	Lys	Leu	Gln	Asn	Tyr										
			130												

<210> 2867

<211> 444

<212> DNA

<213> Homo sapiens

<400> 2867

atgctgttca gcctcaagta cctgggcatg acgctagtgg agcagcccaa gggtgaggag  
60  
ctgtcggccg ccgccatcaa gaggatcgtg gctacagcta aggccagtgg gaagaagctg  
120  
cagaaggtga ctctgaaggt gtcgccacgg ggaattatcc ttcattccagg ccatcatcca  
180  
gtccccagac aacctgctg ccaactcaagg cttgtggccg cggcacctcg tccatgttgg  
240  
tggtgttggc gctgaccgtg gacagcgggg ccttagccgt ctctcttaag tccagcaggt  
300

tcccagtggc gaccaagctc ttcaaggggg ggggtgcagtc ttggcggggc cccaggacgt  
 360  
 cccctccctc ttggttggtt ttgtccctct tctctttctc ttccttggac acctgccaaa  
 420  
 actcaaaggc gactttgaag gcct  
 444

<210> 2868

<211> 84

<212> PRT

<213> Homo sapiens

<400> 2868

Met	Leu	Phe	Ser	Leu	Lys	Tyr	Leu	Gly	Met	Thr	Leu	Val	Glu	Gln	Pro
1				5					10					15	
Lys	Gly	Glu	Glu	Leu	Ser	Ala	Ala	Ala	Ile	Lys	Arg	Ile	Val	Ala	Thr
		20						25					30		
Ala	Lys	Ala	Ser	Gly	Lys	Lys	Leu	Gln	Lys	Val	Thr	Leu	Lys	Val	Ser
		35					40					45			
Pro	Arg	Gly	Ile	Ile	Leu	His	Pro	Gly	His	His	Pro	Ala	Pro	Arg	Gln
	50					55					60				
His	Cys	Cys	His	Ser	Arg	Leu	Val	Ala	Ala	Ala	Pro	Arg	Pro	Cys	Trp
65					70				75					80	
Trp	Cys	Trp	Arg												

<210> 2869

<211> 5811

<212> DNA

<213> Homo sapiens

<400> 2869

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 cagcaatatg gaccaaacag ccagttcccc acccagccag gccagtaccc tacccecaac  
 120  
 cccccaaggc cactcacctc ccccaactac ccaggacaaa ggatgcccag ccaaccagc  
 180  
 tccggacagt acccaccccc cacagtcaac atggggcagt attacaagcc agaacagttt  
 240  
 aatggacaaa ataacacgtt ctggggaagc agctacagta actacagcca agggaatgtc  
 300  
 aacaggcctc ccaggccggt tctgtggca aattaccccc actcacctgt tccagggaac  
 360  
 cccacacccc ccatgacccc tgggagcagc atccctccat acctgtcccc cagccaagac  
 420  
 gtcaaaccac ccttcccgcc tgacatcaag ccaaatatga gcgctctgcc accaccccca  
 480  
 gccaaaccaca atgacgagct gcggtcaca ttcctgtgc gggatggcgt ggtgctggag  
 540  
 ccttccgcc tggagcacia cctggctgta agcaaccatg tgttcagct gcgagactca  
 600  
 gtctacaaga cctgataat gaggcctgac ctggagctgc aattcaagt ctaccaccac  
 660

gaggaccggc agatgaacac caactggccc gcctcgggtgc aggtcagcgt gaacgccacg  
720  
ccgctcacca tcgagcgcg cgacaacaag acctcccaca agcccctgca cctgaagcac  
780  
gtgtgccagc caggccgcaa caccatccag atcacgcgtca cggcctgctg ctgtccccac  
840  
ctcttcgtgc tgcagctagt gcaccggccc tccgtccgct ctgtgctgca aggactcctc  
900  
aagaagcgcc tcctgcccgc agagcactgt atcacgaaaa tcaagcggaa tttcagcagc  
960  
gtggctgcct cctcgggcaa cacgaccctc aacggggagg atgggggtgga gcagacggcc  
1020  
atcaagggtgt ctctgaagtgc ccccatcaca ttccggcgca tccagctgcc tgctcgagga  
1080  
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<211> 258

<212> PRT

<213> Homo sapiens

<400> 2870

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&lt;213&gt; Homo sapiens

&lt;400&gt; 2871

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&lt;211&gt; 153

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2872

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Leu Tyr Trp Thr Val Gly Glu Leu Thr Gly Val Asn Ser Asp Thr Ile
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Gln His Thr Ser Arg Val Leu Gly Ile Glu Leu Leu Glu Gln Ala Val
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Glu Asp Ala Arg Trp Thr Ala Ala Phe Asn Gly Ile Thr Asn Ser Glu
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&lt;400&gt; 2874

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&lt;211&gt; 593

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2875

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<212> PRT

<213> Homo sapiens

<400> 2876

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<211> 1921

<212> DNA

<213> Homo sapiens

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<210> 2878

<211> 451

<212> PRT

<213> Homo sapiens

<400> 2878

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Ser	Thr	Gly	Phe	Gly	Asn	Phe	Glu	Glu	Ile	Gly	Pro	Leu	Asp	Ser	Asp
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&lt;210&gt; 2879

&lt;211&gt; 1352

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2879

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<211> 376

<212> PRT

<213> Homo sapiens

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Gln	Ile	Ala	Trp	Gln	Ile	Tyr	Arg	His	Gln	Gln	Lys	Ile	Lys	Glu	Met
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&lt;211&gt; 96

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2882

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			20					25					30		
Val	His	Pro	Gln	His	Phe	Leu	Arg	Lys	Arg	Thr	Pro	Ala	Gln	Ala	Gly
		35					40					45			
Pro	Ala	Ile	Ser	Pro	Leu	Pro	Thr	Asp	Ser	Gln	Ser	Pro	Leu	Ala	Ser
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Pro	Leu	Asp	Val	Ser	Gly	Gln	Gly	Ser	Gly	Gly	Cys	Ser	Phe	Asp	Lys
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Lys	Lys	Lys	Lys	Phe	Tyr	Val	Phe	Lys	Leu	Leu	Leu	Gln	Asp	Phe	Asn
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&lt;211&gt; 516

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2883

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<211> 172

<212> PRT

<213> Homo sapiens

<400> 2884

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Pro	Cys	Gln	Glu	Glu	His	Gly	His	Pro	Arg	Arg	Ile	Pro	His	Leu	Pro
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Gly	His	Pro	Tyr	Ser	Pro	Glu	Tyr	Ala	Pro	Ser	Pro	Leu	His	Cys	Ser
				85					90					95	
His	Pro	Leu	Gly	Ser	Leu	Ala	Leu	Gly	Gln	Ser	Pro	Gly	Val	Ser	Met
			100					105					110		
Met	Ser	Pro	Val	Pro	Gly	Cys	Pro	Pro	Ser	Pro	Ala	Tyr	Tyr	Ser	Pro
			115					120					125		
Ala	Thr	Tyr	His	Pro	Leu	His	Ser	Asn	Leu	Gln	Ala	His	Leu	Gly	Gln
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Leu	Ser	Pro	Pro	Pro	Glu	His	Pro	Gly	Phe	Asp	Ala	Leu	Asp	Gln	Leu
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<210> 2885

<211> 807

<212> DNA

<213> Homo sapiens

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&lt;210&gt; 2886

&lt;211&gt; 269

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2886

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Gly	Leu	Glu	His	Asp	Leu	Asp	Asp	Val	Asn	Ala	Arg	Trp	Lys	Thr	Leu
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Asn	Lys	Lys	Val	Ala	Gln	Arg	Ala	Ala	Gln	Leu	Gln	Glu	Ala	Leu	Leu
	210					215					220				
His	Cys	Gly	Arg	Phe	Gln	Asp	Ala	Leu	Glu	Ser	Leu	Leu	Ser	Trp	Met



225		230		235		240									
Val	Asp	Thr	Glu	Glu	Leu	Val	Ala	Asn	Gln	Lys	Pro	Pro	Ser	Ala	Glu
			245						250					255	
Phe	Lys	Val	Val	Lys	Asp	Lys	Ile	Gln	Glu	Gln	Lys	Leu			
			260					265							

&lt;210&gt; 2887

&lt;211&gt; 1945

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2887

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 1945

&lt;210&gt; 2888

&lt;211&gt; 315

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2888

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Leu	Cys	Arg	Thr	Leu	Trp	Cys	Gln	Ser	Gly	Trp	Ser	Ser	Arg	Ser	Tyr
			20					25					30		
Thr	Arg	Ser	Met	Leu	Lys	Met	Thr	Thr	Ser	Ile	Asn	Arg	Arg	Ser	Arg
			35				40					45			
Thr	Ser	Thr	Lys	Ser	Thr	Arg	Thr	Ser	Ala	Arg	Pro	Gly	Leu	Thr	Ala
			50			55				60					
Thr	Val	Ser	Ile	Gly	Leu	Ser	Asp	Ser	Pro	Thr	Trp	Arg	His	Cys	Trp
65					70					75				80	
Met	Thr	Ala	Arg	Ser	Cys	Ser	Gly	Glu	Lys	Gly	Gly	His	Trp	Ala	Pro
				85				90				95			
Arg	Gln	Val	Gly	Val	Tyr	Leu	Leu	Pro	Gly	Arg	Val	Gly	Cys	Val	Ser
			100					105				110			
Ser	Arg	Val	Ser	Pro	Ser	Phe	Pro	Gly	Asp	Gly	Leu	Asp	Ser	Gly	Leu
			115				120				125				
Ala	Arg	Arg	Gly	Ser	Ala	Val	Ser	Ala	Leu	Ala	Ser	Gly	Leu	Val	Glu
			130			135					140				
Glu	Pro	Met	Leu	Gly	Pro	Phe	His	Pro	Thr	Pro	Arg	Phe	Lys	Ala	
145					150				155					160	
Val	Ser	Ala	Lys	Ser	Lys	Glu	Asp	Leu	Val	Ser	Gln	Gly	Phe	Thr	Gln
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<210> 2889
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<212> DNA
<213> Homo sapiens
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<211> 204
<212> PRT
<213> Homo sapiens
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2123

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Pro Glu Val Lys Leu Pro Arg Ala Pro Glu Val Gln Leu Lys Ala Thr
35           40           45
Lys Ala Glu Gln Ala Glu Gly Met Glu Phe Gly Phe Lys Met Pro Lys
50           55           60
Met Thr Met Pro Lys Leu Gly Arg Ala Glu Ser Pro Ser Arg Gly Lys
65           70           75           80
Pro Gly Glu Ala Gly Ala Glu Val Ser Gly Lys Leu Val Thr Leu Pro
85           90           95
Cys Leu Gln Pro Glu Val Asp Gly Glu Ala His Val Gly Val Pro Ser
100          105          110
Leu Thr Leu Pro Ser Val Glu Leu Asp Leu Pro Gly Ala Leu Gly Leu
115          120          125
Gln Gly Gln Val Pro Ala Ala Lys Met Gly Lys Gly Glu Arg Ala Glu
130          135          140
Gly Pro Glu Val Ala Ala Gly Val Arg Glu Val Gly Phe Arg Val Pro
145          150          155          160
Ser Val Glu Ile Val Thr Pro Gln Leu Pro Ala Val Glu Ile Glu Glu
165          170          175
Gly Arg Leu Glu Met Ile Glu Thr Lys Val Lys Pro Ser Ser Lys Phe
180          185          190
Ser Leu Pro Lys Phe Gly Leu Ser Gly Pro Lys Val
195          200

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&lt;210&gt; 2891

&lt;211&gt; 565

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2891

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180
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&lt;210&gt; 2892

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 <212> PRT  
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 Arg Leu Cys Arg Ala Leu Ser Lys Thr Pro Leu Gln His Gln Leu His  
                     20                    25                    30  
 Ser Thr Ser Tyr Arg Lys Ala Leu Pro Ile Leu Arg Pro Ser Ser Arg  
                     35                    40                    45  
 Arg Glu Ala Gly Pro Leu His His Ile Asp Leu Arg Arg Cys Phe Ser  
                     50                    55                    60  
 Arg Leu Gly Arg Gly Ala Asp Phe Ala Val Cys Ala Lys Glu Pro Val  
 65                    70                    75                    80  
 Ser Asp Asn Pro Ile Phe Leu Leu Ile Thr  
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<210> 2893  
 <211> 2270  
 <212> DNA  
 <213> Homo sapiens

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&lt;210&gt; 2894

&lt;211&gt; 490

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2894

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		20		25		30
Gln	Val	Ser	Val	Ser	Leu	His
		35		40		45
Cys	Ser	Val	Pro	Leu	Trp	Cys
		50		55		60
Leu	Ser	Leu	Pro	Ser	Ala	Ser
65				70		75
Phe	Leu	Asn	Leu	Asp	Cys	Pro
			85		90	
Ser	Pro	Ser	Val	Cys	Gly	Ser
		100		105		110
Trp	Pro	Leu	Pro	Ala	Gln	Thr
		115		120		125
Gln	Leu	His	Ser	Met	Ser	Thr
		130		135		140
Thr	Asp	Val	Arg	Phe	Ala	Asn
145				150		155
Leu	Asp	Leu	Phe	Lys	Phe	Tyr
			165		170	
Asp	Glu	Lys	Lys	Ile	Ile	Lys
		180		185		190
Val	Glu	Val	Asn	Thr	Ala	Phe
		195		200		205
Asp	Lys	Arg	Ala	Ala	Ala	Leu
		210		215		220
Asn	Ser	Leu	Leu	Glu	Lys	Ala
225				230		235
Glu	Glu	Ala	Arg	Arg	Met	Arg
			245		250	
Leu	Arg	Gln	Ala	Val	Pro	Ala
		260		265		270
Val	Arg	Glu	Arg	Phe	Val	Cys
		275		280		285
Glu	Ser	Glu	Arg	Ile	Arg	Leu
		290		295		300
Thr	Glu	Cys	Gln	His	Leu	His
305				310		315
Gly	Lys	Lys	His	His	His	Lys
			325		330	
Ser	Glu	Glu	Glu	Glu	Leu	Pro
		340		345		350
Arg	Arg	Arg	Asn	Pro	Ser	Glu
		355		360		365
Asp	Ser	Val	Glu	Ser	Gly	Gly
		370		375		380
Ser	Ser	His	Leu	Leu	Gly	Ala
385				390		395
Pro	Lys	Lys	Lys	Thr	Lys	Lys
			405		410	
Ser	Glu	Thr	Asp	Pro	Glu	Glu
		420		425		430
Glu	Gln	Glu	Gln	Asp	Lys	Asp
				Arg	Glu	Leu

435                                      440                                      445  
 Asn Arg Ser Pro Gly Phe Gly Ile Lys Lys Glu Lys Thr Gly Trp Asp  
 450                                      455                                      460  
 Thr Ser Glu Ser Glu Leu Ser Glu Gly Glu Leu Glu Arg Arg Arg Arg  
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 Thr Leu Leu Gln Gln Leu Asp Asp His Gln  
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<210> 2895

<211> 697

<212> DNA

<213> Homo sapiens

<400> 2895

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<210> 2896

<211> 174

<212> PRT

<213> Homo sapiens

<400> 2896

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 20                                      25                                      30  
 Pro Leu Arg Gly Pro Ser Ala Thr Ser Ser Cys Arg Gly Gly Asn Ala  
 35                                      40                                      45  
 Pro Gln Gly Leu Gln Lys Gly Gly Gly Glu Ala Pro Val Leu Leu Leu  
 50                                      55                                      60  
 Gln Glu Leu Ala Gln Asp Ala Val Ala Pro Ala Val Ala Arg Arg Ser



65		70		75		80									
Ala	Pro	Ala	Pro	Cys	Ser	Asn	Arg	Leu	Arg	Ser	Pro	Ser	Pro	Pro	Ser
				85					90					95	
Leu	Pro	Pro	Asp	Arg	Pro	Arg	Pro	Pro	Ala	Arg	Arg	His	Ser	Phe	Arg
			100					105					110		
Gly	Pro	Ala	Leu	Arg	Ser	Gly	Pro	Pro	Leu	Pro	Pro	Pro	Pro	Arg	Arg
		115					120					125			
Pro	Leu	Leu	Arg	Pro	Pro	Val	Ala	Ala	Ala	Leu	Pro	Pro	Gln	Pro	Ala
		130				135					140				
Pro	Ser	Leu	Pro	Ala	Ser	Arg	Ala	His	Ser	Cys	Pro	Gly	Arg	Pro	Arg
145					150					155				160	
Leu	Gly	Gly	Val	Glu	Gln	Pro	Leu	Glu	Val	Leu	Gly	Asp	Ala		
			165					170							

&lt;210&gt; 2897

&lt;211&gt; 3184

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2897

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1020

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2100  
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2160  
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2580  
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2640

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 2760  
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 agcc  
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<210> 2898

<211> 933

<212> PRT

<213> Homo sapiens

<400> 2898

Met	Asn	Val	Glu	Ile	Lys	Cys	Lys	Asp	Arg	Thr	Gly	Ser	Ile	Thr	Leu
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Leu	Thr	Pro	Asn	Gln	Thr	Asn	Ile	Ile	Asn	Phe	Tyr	Glu	Val	Glu	Leu
			20					25					30		
Asn	Glu	Cys	Val	Gln	Cys	Glu	Phe	Asn	Phe	Ile	Asn	Thr	Gly	Lys	Phe
		35					40					45			
Thr	Phe	Ser	Phe	Gln	Ala	Gln	Leu	Cys	Gly	Ser	Lys	Thr	Leu	Leu	Gln
	50					55					60				
Tyr	Leu	Glu	Phe	Ser	Pro	Ile	Asp	Ser	Thr	Val	Asp	Val	Gly	Gln	Ser
65					70					75				80	
Val	His	Ala	Thr	Leu	Ser	Phe	Gln	Pro	Leu	Lys	Lys	Cys	Val	Leu	Thr
			85						90					95	
Asp	Leu	Glu	Leu	Ile	Ile	Lys	Ile	Ser	His	Gly	Pro	Thr	Phe	Met	Cys
			100					105						110	
Asn	Ile	Ser	Gly	Cys	Ala	Val	Ser	Pro	Ala	Ile	His	Phe	Ser	Phe	Thr
		115						120				125			
Ser	Tyr	Asn	Phe	Gly	Thr	Cys	Phe	Ile	Tyr	Gln	Ala	Gly	Met	Pro	Pro
	130					135					140				
Tyr	Lys	Gln	Thr	Leu	Val	Ile	Thr	Asn	Lys	Glu	Glu	Thr	Pro	Met	Ser
145				150						155				160	
Ile	Asp	Cys	Leu	Tyr	Thr	Asn	Thr	Thr	His	Leu	Glu	Val	Asn	Ser	Arg
			165						170					175	
Val	Asp	Val	Val	Lys	Pro	Gly	Asn	Thr	Leu	Glu	Ile	Pro	Ile	Thr	Phe
			180					185					190		
Tyr	Pro	Arg	Glu	Ser	Ile	Asn	Tyr	Gln	Glu	Leu	Ile	Pro	Phe	Glu	Ile
		195				200						205			
Asn	Gly	Leu	Ser	Gln	Gln	Thr	Val	Glu	Ile	Lys	Gly	Lys	Gly	Thr	Glu

210	215	220
Met Lys Ile Leu Val Leu Asp Pro Ala Asn Arg Ile Val Lys Leu Gly		
225	230	235
Ala Val Leu Pro Gly Gln Val Val Lys Arg Thr Val Ser Ile Met Asn		240
	245	250
Asn Ser Leu Ala Gln Leu Thr Phe Asn Gln Ser Ile Leu Phe Thr Ile		255
	260	265
Pro Glu Leu Gln Glu Pro Lys Val Leu Thr Leu Ala Pro Phe His Asn		270
	275	280
Ile Thr Leu Lys Pro Lys Glu Val Cys Lys Leu Glu Val Ile Phe Ala		285
	290	295
Pro Lys Lys Arg Val Pro Phe Ser Glu Glu Val Phe Met Glu Cys		300
305	310	315
Met Gly Leu Leu Arg Pro Leu Phe Leu Leu Ser Gly Cys Cys Gln Ala		320
	325	330
Leu Glu Ile Ser Leu Asp Gln Glu His Ile Pro Phe Gly Pro Val Val		335
	340	345
Tyr Gln Thr Gln Ala Thr Arg Arg Ile Leu Met Leu Asn Thr Gly Asp		350
	355	360
Val Gly Ala Arg Phe Lys Trp Asp Ile Lys Lys Phe Glu Pro His Phe		365
	370	375
Ser Ile Ser Pro Glu Glu Gly Tyr Ile Thr Ser Gly Met Glu Val Ser		380
385	390	395
Phe Glu Val Thr Tyr His Pro Thr Glu Val Gly Lys Glu Ser Leu Cys		400
	405	410
Lys Asn Ile Leu Cys Tyr Ile Gln Gly Gly Ser Pro Leu Ser Leu Thr		415
	420	425
Leu Ser Gly Val Cys Val Gly Pro Pro Ala Val Lys Glu Val Val Asn		430
	435	440
Phe Thr Cys Gln Val Arg Ser Lys His Thr Gln Thr Ile Leu Leu Ser		445
450	455	460
Asn Arg Thr Asn Gln Thr Trp Asn Leu His Pro Ile Phe Glu Gly Glu		465
	470	475
His Trp Glu Gly Pro Glu Phe Ile Thr Leu Glu Ala His Gln Gln Asn		480
	485	490
Lys Pro Tyr Glu Ile Thr Tyr Arg Pro Arg Thr Met Asn Leu Glu Asn		495
	500	505
Arg Lys His Gln Gly Thr Leu Phe Phe Pro Leu Pro Asp Gly Thr Gly		510
	515	520
Trp Leu Tyr Ala Leu His Gly Thr Ser Glu Leu Pro Lys Ala Val Ala		525
	530	535
Asn Ile Tyr Arg Glu Val Pro Cys Lys Thr Pro Tyr Thr Glu Leu Leu		540
545	550	555
Pro Ile Thr Asn Trp Leu Asn Lys Pro Gln Arg Phe Arg Val Ile Val		560
	565	570
Glu Ile Leu Lys Pro Glu Lys Pro Asp Leu Ser Ile Thr Met Lys Gly		575
	580	585
Leu Asp Tyr Ile Asp Val Leu Ser Gly Ser Lys Lys Asp Tyr Lys Leu		590
	595	600
Asn Phe Phe Ser His Lys Glu Gly Thr Tyr Ala Ala Lys Val Ile Phe		605
	610	615
Arg Asn Glu Val Thr Asn Glu Phe Leu Tyr Tyr Asn Val Ser Phe Arg		620
625	630	635
Val Ile Pro Ser Gly Ile Ile Lys Thr Ile Glu Met Val Thr Pro Val		640

```
<210> 2899
<211> 876
<212> DNA
<213> Homo sapiens
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2133

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 360  
 attgacagag atggggaaga ggaagaggaa gaggaggagc cattggatga aagctcagtg  
 420  
 aagaaaaatga tcctcacatt tgaaaagaga tcatataaaa accaagaatt gcggattaag  
 480  
 tttccagaca atccagagaa gttcatggaa tccgagctgg acctaaatga catcattcag  
 540  
 gagatgcacg tggtagccac catgccagac ctgtaccacc ttctggtgga gctgaatgct  
 600  
 gtacagtcgc ttctcggtt gtcgggacac gataatacag atgtgtccat agctgtggtc  
 660  
 gatttgcttc aggaattaac agatatagac accctccatg agagtgaaga gggagcagaa  
 720  
 gtgctcatcg atgctctggt ggatgggcag gtggtagcac tgctggtaca gaatctggag  
 780  
 cgcctggatg agtctgtgaa agaggaggca gatggcgtcc acaacactct ggctattgtg  
 840  
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 876

&lt;210&gt; 2900

&lt;211&gt; 189

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2900

Met	Thr	Val	Val	Glu	Glu	Ala	Asp	Asp	Asp	Lys	Lys	Arg	Leu	Leu	Gln
1				5					10					15	
Ile	Ile	Asp	Arg	Asp	Gly	Glu	Glu	Glu	Glu	Glu	Glu	Glu	Glu	Pro	Leu
		20					25						30		
Asp	Glu	Ser	Ser	Val	Lys	Lys	Met	Ile	Leu	Thr	Phe	Glu	Lys	Arg	Ser
		35					40					45			
Tyr	Lys	Asn	Gln	Glu	Leu	Arg	Ile	Lys	Phe	Pro	Asp	Asn	Pro	Glu	Lys
	50					55				60					
Phe	Met	Glu	Ser	Glu	Leu	Asp	Leu	Asn	Asp	Ile	Ile	Gln	Glu	Met	His
65					70					75				80	
Val	Val	Ala	Thr	Met	Pro	Asp	Leu	Tyr	His	Leu	Leu	Val	Glu	Leu	Asn
				85					90					95	
Ala	Val	Gln	Ser	Leu	Leu	Gly	Leu	Leu	Gly	His	Asp	Asn	Thr	Asp	Val
			100				105						110		
Ser	Ile	Ala	Val	Val	Asp	Leu	Leu	Gln	Glu	Leu	Thr	Asp	Ile	Asp	Thr
		115					120					125			
Leu	His	Glu	Ser	Glu	Glu	Gly	Ala	Glu	Val	Leu	Ile	Asp	Ala	Leu	Val
	130					135					140				
Asp	Gly	Gln	Val	Val	Ala	Leu	Leu	Val	Gln	Asn	Leu	Glu	Arg	Leu	Asp
145					150					155				160	
Glu	Ser	Val	Lys	Glu	Glu	Ala	Asp	Gly	Val	His	Asn	Thr	Leu	Ala	Ile
				165					170					175	
Val	Glu	Asn	Met	Ala	Glu	Phe	Arg	Pro	Glu	Met	Cys	Thr			
			180						185						

&lt;210&gt; 2901

&lt;211&gt; 756

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2901

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ccgcccgtcc agagcctgaa gggcgaggat gctgaggaat ccttggagga ggaggaggcg  
120  
ctggaccctc tgggcattat gcgctccaag aagcccaaga aacatcccaa agtggccgtg  
180  
aaagccaagc cctcgccccg gctcaccatc tttgacgagg aggtggaccc tgatgagggg  
240  
ctctttggcc cgggcaggaa gctgtctcca caggaccctt cggaggacgt gtcacccatg  
300  
gacccctga agctatttga tgatcctgac ctccgcgggg ccacccccct gggtgactcc  
360  
ctcctgctgc cggccgcctg tgagagtgga gggccacac ccagcctcag ccacagggac  
420  
gcctccaagg aactgttcag gtaccacctg tccccagcgg cgcttgacca gctctgagag  
480  
tgtcctggac agagccaagg gcccggtcca ttgcccagtc tcagccccag cctcctctga  
540  
ggggaggacc ccaggcctgt gaaaagtaga agcctgtggg tgcacattgg gtgagagggc  
600  
gtgaaggggg ctgaggggga ggnaantcgc ccagggctgc tcagctagtt ccagaaagag  
660  
agaactttgt gtgcacaacc agtctttctt ttcacaatca tattttaaca gtttatgtaa  
720  
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756

&lt;210&gt; 2902

&lt;211&gt; 158

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2902

Thr	Arg	Arg	Arg	Gly	Ala	Phe	Asp	Phe	Phe	Glu	Lys	Gln	Asp	Gln	Val
1				5					10					15	
Ala	Glu	Glu	Gly	Pro	Pro	Val	Gln	Ser	Leu	Lys	Gly	Glu	Asp	Ala	Glu
			20					25					30		
Glu	Ser	Leu	Glu	Glu	Glu	Glu	Ala	Leu	Asp	Pro	Leu	Gly	Ile	Met	Arg
			35				40					45			
Ser	Lys	Lys	Pro	Lys	Lys	His	Pro	Lys	Val	Ala	Val	Lys	Ala	Lys	Pro
			50			55					60				
Ser	Pro	Arg	Leu	Thr	Ile	Phe	Asp	Glu	Glu	Val	Asp	Pro	Asp	Glu	Gly
65					70					75				80	
Leu	Phe	Gly	Pro	Gly	Arg	Lys	Leu	Ser	Pro	Gln	Asp	Pro	Ser	Glu	Asp
			85					90						95	
Val	Ser	Ser	Met	Asp	Pro	Leu	Lys	Leu	Phe	Asp	Asp	Pro	Asp	Leu	Gly
			100					105						110	
Gly	Ala	Ile	Pro	Leu	Gly	Asp	Ser	Leu	Leu	Leu	Pro	Ala	Ala	Cys	Glu
			115					120					125		
Ser	Gly	Gly	Pro	Thr	Pro	Ser	Leu	Ser	His	Arg	Asp	Ala	Ser	Lys	Glu

130 135 140  
 Leu Phe Arg Tyr His Leu Ser Pro Ala Ala Leu Gly Gln Leu  
 145 150 155

<210> 2903  
 <211> 542  
 <212> DNA  
 <213> Homo sapiens

<400> 2903  
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 120  
 gactcacaga acctcagtgc ctacaacacc cggctcttca aagaggtcga tggagaaggg  
 180  
 aagccctact acgagggtgcg gctggcttct gtgcttggt cagagccttc cctggactct  
 240  
 gaggtgactt ccaagctgaa gagctatgaa ttccggggaa gccctttcca ggtgaccg  
 300  
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 360  
 gcagccaaca gccaccaggg gcagatgctg gccaggtata tagagagctt caccagggc  
 420  
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 480  
 ggagaggtga ggcgccagct ccacccacc tgcctctcc tgcctgcccc tccttcacgc  
 540  
 gt  
 542

<210> 2904  
 <211> 180  
 <212> PRT  
 <213> Homo sapiens

<400> 2904  
 Lys Leu Met Phe Ser Leu Tyr Pro Arg Leu Arg His Leu Gly Leu Gly  
 1 5 10 15  
 Lys Glu Gly Ile Thr Thr Tyr Phe Ser Gly Asn Cys Thr Met Glu Asp  
 20 25 30  
 Ala Lys Leu Ala Gln Asp Phe Leu Asp Ser Gln Asn Leu Ser Ala Tyr  
 35 40 45  
 Asn Thr Arg Leu Phe Lys Glu Val Asp Gly Glu Gly Lys Pro Tyr Tyr  
 50 55 60  
 Glu Val Arg Leu Ala Ser Val Leu Gly Ser Glu Pro Ser Leu Asp Ser  
 65 70 75 80  
 Glu Val Thr Ser Lys Leu Lys Ser Tyr Glu Phe Arg Gly Ser Pro Phe  
 85 90 95  
 Gln Val Thr Arg Gly Asp Tyr Ala Pro Ile Leu Gln Lys Val Val Glu  
 100 105 110  
 Gln Leu Glu Lys Ala Lys Ala Tyr Ala Ala Asn Ser His Gln Gly Gln  
 115 120 125  
 Met Leu Ala Gln Tyr Ile Glu Ser Phe Thr Gln Gly Ser Ile Glu Ala



130		135		140	
His Lys Arg Gly Ser Arg Phe Trp Ile Gln Asp Lys Gly Pro His Arg					
145		150		155	160
Gly Glu Val Arg Arg Gln Leu His Pro Thr Cys Pro Leu Leu Pro Ala					
	165		170		175
Pro Pro Ser Arg					
180					

&lt;210&gt; 2905

&lt;211&gt; 814

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2905

```

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120
ggattctctc tctgccagg tttctgctgt cccccaaaa gaaagacatg tagctgggca
180
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240
cccaggtgtt caagggtgca gtgggctgtg aatgctctac ttcactccag cctgagcaac
300
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360
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480
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540
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600
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660
gcctctgtgg aggtaccat tgggggttcg cctccaaatc caggaatgca cctcaaaaat
720
gtcctacac cgtaagaccg tgccttcaa tgcaaagggg actgtgcggc gaggcaccga
780
caagccgtag cctgagacc actcaaagcc tgca
814

```

&lt;210&gt; 2906

&lt;211&gt; 200

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2906

Phe Ser Tyr Pro Ser Phe Val Tyr Leu Gly Thr Phe Thr Leu Val Asp					
1		5		10	15
Asn Arg Ile Pro Val Thr Arg Ser Phe Phe Cys Ile Thr Asn Ser Ala					
	20		25		30
Thr Leu Phe Gln Asn Trp Val Ser Gly Phe Leu Leu Cys Pro Gly Phe					

```

      35          40          45
Cys Cys Pro Pro Lys Arg Lys Thr Cys Ser Trp Ala Trp Trp Tyr Thr
  50          55          60
Ser Val Val Pro Val Thr Gln Glu Ala Glu Ala Gly Gly Leu Leu Glu
  65          70          75          80
Pro Arg Cys Ser Arg Leu Gln Trp Ala Val Asn Ala Leu Leu His Ser
      85          90          95
Ser Leu Ser Asn Arg Ala Arg Pro Arg Pro Ser Ser Arg Leu Ser Ile
      100          105          110
Pro Pro Pro Gln His Pro Phe Leu Leu Glu Met Gly Phe Gly Val Val
      115          120          125
Asn Gln Ala Gln Gly Asn Leu Arg Gly Pro Ala Ser Ser Val Arg Cys
      130          135          140
Arg Arg Ser Thr Arg Pro Arg Pro Gly Ser Ala Arg Arg Glu Lys Ala
  145          150          155          160
Ala Thr Pro Gly Val Arg Glu Leu Arg Leu Glu Gly Ala Trp Gln Ala
      165          170          175
Gly Arg Gly Pro Gly Gly Gly Ser Ala Tyr Asp Arg Arg Trp Gly Glu
      180          185          190
Leu Leu Asp Val Lys Gly Pro Leu
      195          200

```

&lt;210&gt; 2907

&lt;211&gt; 379

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2907

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120
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180
caaaggcaaa ggaattcttc ccttaatgtt ggacggctct gagactgtc caccctgggc
240
tcattacact gggaccagct ttaagcttcc ctgttcaacg cggagagctc cacagcccag
300
gacgacagag cagatgatgg cacgacgccc tcaaaacca gacaggcctt cttggcttgc
360
cctggccgat gccaccggt
379

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&lt;210&gt; 2908

&lt;211&gt; 113

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2908

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Met Thr Val Ser Asp Arg Pro Ser Ala Gly Cys Asp Leu Pro Lys Leu
, 1          5          10          15
Met Thr Ala Ser Leu Asn Gly Trp Val Leu Arg Asn Ser Ile Phe Thr
      20          25          30
Phe Pro Arg Leu Leu Ser Asn Phe Gln His Cys Pro Gln Asp Tyr Lys

```

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<210> 2909
<211> 2420
<212> DNA
<213> Homo sapiens
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2139

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1200  
aatagtgaga gagaaaatcc caaacatttg agacagggtt caaaagcacc cagacgcctt  
1260  
ctgtctcttt cccagttccc atctggctag ggactgtgaa tcagaattca gaatctgtgc  
1320  
tgccctgagg ggacaggcac ccaaatgcaa taaataacac caagctcagg acccagccac  
1380  
tgaccttccct ccaccactgc tgcgggttat tctctgatgg gaactgaagg atccaaggga  
1440  
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1500  
cttctgcaca ggacagagcc tccagtcttt tgcttgagag catcatttat ggcattggact  
1560  
gggaacgcaa tgtgttcaca caaatgcacg acaattgtac atcagcatct ttacaatatt  
1620  
aaaggagtca tatacaagtc tacagccatt gtacacagga tggatgatggc tggggagccc  
1680  
cgcccaccag tctctctgag tttctccacc ggagaacact tggggagctg tcacaaggcc  
1740  
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1800  
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1860  
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1920  
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1980  
catggtgggg ccatttctg aggtaacgtg cagccctgag gctgggtccga acgggaggag  
2040  
acttctccag cagcccaggt gccagtccac acagacagga ctggaagccc ctgggcagca  
2100  
ggtcaggtag cccggggagt gcagcctgag ccccaacgg cagcaaactg gaaggtctca  
2160  
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2220  
gcacacatcc ctgcatctgt cccgagagcc ccagccctgc aggcattctg gcctgaatgc  
2280  
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2340  
aaagaagcat tggctcttgt cagcctctct gacttttgca gttagggtg catccattta  
2400  
aatatgtaga aaaatagcca  
2420

&lt;210&gt; 2910

&lt;211&gt; 153

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2910

Met Gly Thr Glu Gly Ser Lys Gly Gly Ile Arg Ser Ala Pro Lys Pro

```

      1             5             10             15
Pro Cys Thr Thr Ser Asn Ala Gly Val Trp Leu Leu Leu Leu His Arg
      20             25             30
Thr Glu Pro Pro Val Phe Cys Leu Arg Ala Ser Phe Met Ala Trp Thr
      35             40             45
Gly Asn Ala Met Cys Ser His Lys Cys Thr Thr Ile Val His Gln His
      50             55             60
Leu Tyr Asn Ile Lys Gly Val Ile Tyr Lys Ser Thr Ala Ile Val His
      65             70             75             80
Arg Met Val Met Ala Gly Glu Pro Arg Pro Pro Val Leu Cys Ser Phe
      85             90             95
Ser Thr Gly Glu His Leu Gly Ser Cys His Lys Ala Arg Gly Gly Pro
      100            105            110
Ser Leu Gly Leu Ser Trp Gly Arg Gln Gln Val Cys Lys Asp Ser Ser
      115            120            125
Gly Pro Val Leu Thr Gly Ile Arg Gly Gln Glu Arg Gln Val Cys Leu
      130            135            140
Cys Leu Gly Leu Ile Gly Arg Leu Val
      145            150

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&lt;210&gt; 2911

&lt;211&gt; 1327

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2911

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<210> 2912

<211> 350

<212> PRT

<213> Homo sapiens

<400> 2912

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			20					25					30		
Arg	Ser	Ser	Gly	Gly	Gly	Gly	Trp	Ala	Asp	Pro	Arg	Thr	Cys	Leu	Ser
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	50				55				60						
Gln	Ser	Glu	Lys	Phe	Ala	Lys	Val	Glu	Asn	Gln	Tyr	Gln	Leu	Leu	Lys
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Leu	Glu	Thr	Asn	Glu	Phe	Gln	Gln	Leu	Gln	Ser	Lys	Ile	Ser	Leu	Ile
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Ser	Glu	Lys	Trp	Gln	Lys	Ser	Glu	Ala	Ile	Met	Glu	Gln	Leu	Lys	Ser
			100				105						110		
Phe	Gln	Ile	Ile	Ala	His	Leu	Lys	Arg	Leu	Gln	Glu	Glu	Ile	Asn	Glu
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Thr	Asp	Ile	Arg	Arg	Ile	Ser	Gly	Leu	Val	Thr	Asp	Val	Ile	Ser	Leu
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Ser Val Lys Lys Thr Leu Thr Glu Leu Lys Ser Asp Phe Asp Lys His						
	245		250		255	
Thr Asp Arg Phe Leu Ser Leu Glu Gly Asp Arg Ala Lys Val Leu Lys						
	260		265		270	
Thr Val Thr Phe Ala Asn Asp Leu Lys Pro Lys Val Tyr Asn Leu Lys						
	275		280		285	
Lys Asp Phe Ser Arg Leu Glu Pro Leu Val Asn Asp Leu Thr Leu Arg						
	290		295		300	
Ile Gly Arg Leu Val Thr Asp Leu Leu Gln Arg Glu Lys Glu Ile Ala						
305		310		315		320
Phe Leu Ser Glu Lys Ile Ser Asn Leu Thr Ile Val Gln Ala Glu Ile						
	325		330		335	
Lys Asp Ile Lys Asp Glu Ile Ala His Ile Ser Asp Met Asn						
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&lt;210&gt; 2913

&lt;211&gt; 361

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2913

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360

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361

&lt;210&gt; 2914

&lt;211&gt; 112

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2914

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1 5 10 15Trp Val Met Ile Ser Lys Arg Trp Thr Arg Glu Ala Leu Asp Gly Phe  
20 25 30Cys Asn Met Glu Ile Gly Ile Ile Arg Asn Gly Ser Gln Asp Gly  
35 40 45Pro Glu Pro Ser Ile Ser Gly Leu Lys Lys Leu His Pro Gln Leu Ser  
50 55 60Leu Ser Glu Asp Val His Ala Pro Gln Val Ala Asn Asp Thr Glu Ala  
65 70 75 80

Gly Arg Lys Leu Asp Val Gly Pro Gln Leu Leu Asp Gln Leu Ala Gln

	85		90		95
His	Gln	Leu	His	Gly	Leu
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			His	Asp	Ala
				Leu	Asp
					Asp
	100		105		110

<210> 2915  
 <211> 1782  
 <212> DNA  
 <213> Homo sapiens

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 180  
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<210> 2916

<211> 519

<212> PRT

<213> Homo sapiens

<400> 2916

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			20				25						30		
Ile	Gln	Glu	Val	Glu	Leu	Lys	Ala	Ser	Ala	Ala	Asp	Arg	Glu	Ile	Tyr
		35					40					45			
Leu	Leu	Arg	Thr	Ser	Leu	His	Arg	Glu	Arg	Glu	Gln	Ala	Gln	Gln	Leu
		50				55					60				
His	Gln	Leu	Leu	Ala	Leu	Lys	Glu	Gln	Glu	His	Arg	Lys	Glu	Leu	Glu
65					70					75				80	
Thr	Arg	Glu	Phe	Phe	Thr	Asp	Ala	Asp	Phe	Gln	Asp	Ala	Leu	Ala	Lys
			85					90						95	
Glu	Ile	Ala	Lys	Glu	Glu	Lys	Lys	His	Glu	Gln	Met	Ile	Lys	Glu	Tyr
		100					105					110			
Gln	Glu	Lys	Ile	Asp	Val	Leu	Ser	Gln	Gln	Tyr	Met	Asp	Leu	Glu	Asn
		115				120						125			
Glu	Phe	Arg	Ile	Ala	Leu	Thr	Val	Glu	Ala	Arg	Arg	Phe	Gln	Asp	Val
		130				135					140				
Lys	Asp	Gly	Phe	Glu	Asn	Val	Ala	Thr	Glu	Leu	Ala	Lys	Ser	Lys	His
145					150					155				160	
Ala	Leu	Ile	Trp	Ala	Gln	Arg	Lys	Glu	Asn	Glu	Ser	Ser	Ser	Leu	Ile
			165					170						175	
Lys	Asp	Leu	Thr	Cys	Met	Val	Lys	Glu	Gln	Lys	Thr	Lys	Leu	Ala	Glu
		180					185					190			
Val	Ser	Lys	Leu	Lys	Gln	Glu	Thr	Ala	Ala	Asn	Leu	Gln	Asn	Gln	Ile
		195				200						205			
Asn	Thr	Leu	Glu	Ile	Leu	Ile	Glu	Asp	Asp	Lys	Gln	Lys	Ser	Ile	Gln
		210				215					220				
Ile	Glu	Leu	Leu	Lys	His	Glu	Lys	Val	Gln	Leu	Ile	Ser	Glu	Leu	Ala
225				230						235				240	
Ala	Lys	Glu	Ser	Leu	Ile	Phe	Gly	Leu	Arg	Thr	Glu	Arg	Lys	Val	Trp
			245					250						255	
Gly	His	Glu	Leu	Ala	Gln	Gln	Gly	Ser	Ser	Leu	Ala	Gln	Asn	Arg	Gly

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 Arg Lys Thr Asn Glu Ser Asp Ser Asp Ala Leu Arg Ile Lys Cys Lys  
 290 295 300  
 Ile Ile Asp Asp Gln Thr Glu Thr Ile Arg Lys Leu Lys Asp Cys Leu  
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 Gln Glu Lys Asp Glu His Ile Lys Arg Leu Gln Glu Lys Ile Thr Glu  
 325 330 335  
 Ile Glu Lys Cys Thr Gln Glu Gln Leu Asp Glu Lys Ser Ser Gln Leu  
 340 345 350  
 Asp Glu Val Leu Glu Lys Leu Glu Arg His Asn Glu Arg Lys Glu Lys  
 355 360 365  
 Leu Lys Gln Gln Leu Lys Gly Lys Glu Val Glu Leu Glu Glu Ile Arg  
 370 375 380  
 Lys Ala Tyr Ser Thr Leu Asn Arg Lys Trp His Asp Lys Gly Glu Leu  
 385 390 395 400  
 Leu Cys His Leu Glu Thr Gln Val Lys Glu Val Lys Glu Lys Phe Glu  
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 Asn Lys Glu Lys Lys Leu Lys Ala Glu Arg Asp Lys Ser Ile Glu Leu  
 420 425 430  
 Gln Lys Asn Ala Met Glu Lys Leu His Ser Met Asp Asp Ala Phe Lys  
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 Arg Gln Val Asp Ala Ile Val Glu Ala His Gln Ala Glu Ile Ala Gln  
 450 455 460  
 Leu Ala Asn Glu Lys Gln Lys Cys Ile Asp Ser Ala Asn Leu Lys Val  
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 His Gln Ile Glu Lys Glu Met Arg Glu Leu Leu Glu Glu Thr Cys Lys  
 485 490 495  
 Asn Lys Lys Thr Met Glu Ala Lys Ile Lys Gln Leu Ala Phe Ala Leu  
 500 505 510  
 Asn Glu Ile Gln Gln Asp Met  
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&lt;210&gt; 2917

&lt;211&gt; 2636

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2917

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 2636

&lt;210&gt; 2918

&lt;211&gt; 509

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2918

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			20					25					30		
Met	Asp	Glu	Leu	Val	Pro	Leu	Gly	Glu	Leu	Thr	Lys	His	Ser	Thr	Ser
	35						40					45			
Ala	Val	Asp	Leu	Ser	Thr	Xaa	Phe	Ala	Gln	Ile	Ser	His	Thr	Ala	Arg
	50					55				60					
Gln	Leu	Asp	Trp	Pro	Asp	Pro	Glu	Glu	Ala	Phe	Met	Ile	Thr	Val	Lys
65				70					75					80	
Phe	Val	Glu	Asp	Thr	Cys	Arg	Leu	Ala	Leu	Val	Tyr	Cys	Ser	Leu	Ile
			85					90					95		
Lys	Ala	Arg	Ala	Arg	Glu	Leu	Ser	Ser	Gly	Gln	Lys	Asp	Gln	Gly	Gln
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Ala	Ala	Asn	Met	Leu	Cys	Val	Val	Asn	Asp	Met	Glu	Gln	Leu	Arg	
	115					120					125				
Leu	Val	Ile	Gly	Lys	Leu	Pro	Ala	Gln	Leu	Ala	Trp	Glu	Ala	Leu	Glu
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Gln	Arg	Val	Gly	Ala	Val	Leu	Glu	Gln	Gly	Gln	Leu	Gln	Asn	Thr	Leu
145				150					155					160	
His	Ala	Gln	Leu	Gln	Ser	Ala	Leu	Ala	Gly	Leu	Gly	His	Glu	Ile	Arg
			165					170					175		
Thr	Gly	Val	Arg	Thr	Leu	Ala	Glu	Gln	Leu	Glu	Val	Gly	Ile	Ala	Lys
			180					185					190		
His	Ile	Gln	Lys	Leu	Val	Gly	Val	Arg	Glu	Ser	Val	Leu	Pro	Glu	Asp
	195					200						205			
Ala	Ile	Leu	Pro	Leu	Met	Lys	Phe	Leu	Glu	Val	Glu	Leu	Cys	Tyr	Met

210	215	220
Asn Thr Asn Leu Val Gln Glu Asn Phe Ser Ser Leu Leu Thr Leu Leu		
225	230	235
Trp Thr His Thr Leu Thr Val Leu Val Glu Ala Ala Ala Ser Gln Arg		240
	245	250
Ser Ser Ser Leu Ala Ser Asn Arg Leu Lys Ile Ala Leu Gln Asn Leu		255
	260	265
Glu Ile Cys Phe His Ala Glu Gly Cys Gly Leu Pro Pro Lys Ala Leu		270
	275	280
His Thr Ala Thr Phe Gln Ala Leu Gln Arg Asp Leu Glu Leu Gln Ala		285
	290	295
Ala Ser Ser Arg Glu Leu Ile Arg Lys Tyr Phe Cys Ser Arg Ile Gln		300
305	310	315
Gln Gln Ala Glu Thr Thr Ser Glu Glu Leu Gly Ala Val Thr Val Lys		320
	325	330
Ala Ser Tyr Arg Ala Ser Glu Gln Lys Leu Arg Val Glu Leu Leu Ser		335
	340	345
Ala Ser Ser Leu Leu Pro Leu Asp Ser Asn Gly Ser Ser Asp Pro Phe		350
	355	360
Val Gln Leu Thr Leu Glu Pro Arg His Glu Phe Pro Glu Leu Ala Ala		365
	370	375
Arg Glu Thr Gln Lys His Lys Lys Asp Leu His Pro Leu Phe Asp Glu		380
385	390	395
Thr Phe Glu Phe Leu Val Pro Ala Glu Pro Cys Arg Lys Ala Gly Ala		400
	405	410
Cys Leu Leu Leu Thr Val Leu Asp Tyr Asp Thr Leu Gly Ala Asp Asp		415
	420	425
Leu Glu Gly Glu Ala Phe Leu Pro Leu Arg Glu Val Pro Gly Leu Ser		430
	435	440
Gly Ser Glu Glu Pro Gly Glu Val Pro Gln Thr Arg Leu Pro Leu Thr		445
	450	455
Tyr Pro Ala Pro Asn Gly Asp Pro Ile Leu Gln Leu Leu Glu Gly Arg		460
465	470	475
Lys Gly Asp Arg Glu Ala Gln Val Phe Val Arg Leu Arg Arg His Arg		480
	485	490
Ala Lys Gln Ala Ser Gln His Ala Leu Arg Pro Ala Pro		495
	500	505

&lt;210&gt; 2919

&lt;211&gt; 455

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2919

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300

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<210> 2920

<211> 143

<212> PRT

<213> Homo sapiens

<400> 2920

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Glu	Lys	Glu	Glu	Gly	Gly	Ser	Thr	Glu	Ala	Val	His	Ser	Gly	Leu	Ala
		20					25				30				
Arg	Gln	Val	Ser	Ser	Leu	Leu	Thr	Asn	His	Leu	Ala	Arg	Ala	Thr	Glu
		35				40				45					
Cys	Cys	Gly	Asn	Gln	Ala	Ala	Gly	Asn	Asp	Ala	Leu	Gln	Asp	Val	Leu
	50				55				60						
Ser	Leu	Leu	Asn	Asp	Leu	Ser	Arg	Ser	His	Ile	Gly	Lys	Ala	Ile	Leu
65			70				75			80					
Ser	Gln	Pro	Ala	Cys	Val	Ser	Lys	Leu	Leu	Ser	Leu	Leu	Leu	Asp	Gln
		85					90			95					
Arg	Pro	Ser	Pro	Lys	Leu	Val	Leu	Ile	Ile	Leu	Gln	Leu	Cys	Arg	Ala
		100					105			110					
Ala	Leu	Pro	Leu	Met	Ser	Val	Glu	Asp	Cys	Gly	Asn	Val	Glu	Leu	Pro
		115					120			125					
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<210> 2921

<211> 1855

<212> DNA

<213> Homo sapiens

<400> 2921

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 240  
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 300  
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 420  
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1855

&lt;210&gt; 2922

&lt;211&gt; 452

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2922

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20	25	30	
Lys Ile Val Arg Ala Gln Gly Gln Tyr Met Tyr Asp Glu Gln Gly Ala			
35	40	45	
Glu Tyr Ile Asp Cys Ile Ser Asn Val Ala His Val Gly His Cys His			
50	55	60	
Pro Leu Val Val Gln Ala Ala His Glu Gln Asn Gln Val Leu Asn Thr			
65	70	75	80
Asn Ser Arg Tyr Leu His Asp Asn Ile Val Asp Tyr Ala Gln Arg Leu			
85	90	95	
Ser Glu Thr Leu Pro Glu Gln Leu Cys Val Phe Tyr Phe Leu Asn Ser			
100	105	110	
Gly Ser Glu Ala Asn Asp Leu Ala Leu Arg Leu Ala Arg His Tyr Thr			
115	120	125	
Gly His Gln Asp Val Val Val Leu Asp His Ala Tyr His Gly His Leu			
130	135	140	
Ser Ser Leu Ile Asp Ile Ser Pro Tyr Lys Phe Arg Asn Leu Asp Gly			
145	150	155	160
Gln Lys Glu Trp Val His Val Ala Pro Leu Pro Asp Thr Tyr Arg Gly			
165	170	175	
Pro Tyr Arg Xaa Arg Thr Thr Pro Thr Gln Leu Trp Xaa Tyr Ala Asn			
180	185	190	
Glu Val Lys Arg Val Val Ser Ser Ala Gln Glu Lys Gly Arg Lys Ile			
195	200	205	
Ala Ala Phe Phe Ala Glu Ser Leu Pro Ser Val Gly Gly Gln Ile Ile			
210	215	220	
Pro Pro Ala Gly Tyr Phe Ser Gln Val Ala Glu His Ile Arg Lys Ala			
225	230	235	240
Gly Gly Val Phe Val Ala Asp Glu Ile Gln Val Gly Phe Gly Arg Val			
245	250	255	
Gly Lys His Phe Trp Ala Phe Gln Leu Gln Gly Lys Asp Phe Val Pro			
260	265	270	
Asp Ile Val Thr Met Gly Lys Ser Ile Gly Asn Gly His Pro Val Ala			
275	280	285	
Cys Val Ala Ala Thr Gln Pro Val Ala Arg Ala Phe Glu Ala Thr Gly			
290	295	300	
Val Glu Tyr Phe Asn Thr Phe Gly Gly Ser Pro Val Ser Cys Ala Val			
305	310	315	320
Gly Leu Ala Val Leu Asn Val Leu Glu Lys Glu Gln Leu Gln Asp His			
325	330	335	
Ala Thr Ser Val Gly Ser Phe Leu Met Gln Leu Leu Trp Gln Gln Lys			
340	345	350	
Ile Arg His Pro Ile Val Gly Asp Val Arg Gly Val Gly Leu Phe Ile			
355	360	365	
Gly Val Asp Leu Ile Lys Asp Glu Ala Thr Arg Thr Pro Ala Thr Glu			
370	375	380	
Glu Ala Xaa Val Tyr Leu Val Ser Arg Leu Lys Glu Asn Tyr Val Leu			
385	390	395	400
Leu Ser Thr Asp Gly Pro Gly Arg Asn Ile Leu Lys Phe Lys Pro Pro			
405	410	415	
Met Cys Phe Ser Leu Asp Asn Ala Arg Gln Val Val Ala Lys Leu Asp			
420	425	430	
Ala Ile Leu Thr Asp Met Glu Glu Lys Val Arg Ser Cys Glu Thr Leu			



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Arg Leu Gln Pro  
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440

445

<210> 2923  
<211> 572  
<212> DNA  
<213> Homo sapiens

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120  
tgagagccct ccccggtggg accaccctcc ttccagcaaa atgccggcca agctcaagga  
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gaaacagcgt ttattgtgga ggggagctgg gcggggctca gcctcggaga actggcagta  
240  
cagccgcccc agcctcggct ccacccatag ccggaacggg atctccagga tggcagagaa  
300  
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420  
tagccataca tgaccatgtc tgacacgggg atatgagagg agtccgtcat ctctcgaaac  
480  
cggttgttgt ggcgcgcctg ctccagagtg gcggtgaaga ggaagcagcg gcaggggacg  
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572

<210> 2924  
<211> 91  
<212> PRT  
<213> Homo sapiens

<400> 2924  
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20 25 30  
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35 40 45  
Arg Arg Thr Gly Ser Thr Ala Ala Pro Ala Ser Ala Pro Pro Ile Ala  
50 55 60  
Gly Thr Gly Ser Pro Gly Trp Gln Arg Ser Leu Gln Pro Ala Leu Gly  
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Pro Arg Thr Ala Ser Trp Gln Trp Trp Glu Gln  
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<210> 2925  
<211> 1999  
<212> DNA  
<213> Homo sapiens

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420  
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480  
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<210> 2926

<211> 305

<212> PRT

<213> Homo sapiens

<400> 2926

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			20					25					30		
Ser	Gln	Val	Glu	Ser	Glu	Ser	Ser	Val	Leu	Asn	Asp	Ser	Pro	Phe	Pro
		35					40					45			
Glu	Asp	Asp	Asn	Glu	Gly	Leu	His	Ser	Asp	Ser	Arg	Glu	Glu	Lys	Gln
	50					55					60				
Asn	Thr	Lys	Ser	Ala	Arg	Glu	Arg	Ala	Gly	Gln	Asp	Met	Gly	Leu	Glu
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His	Gly	Phe	Glu	Lys	Pro	Leu	Asp	Ser	Ala	Met	Ser	Ala	Glu	Glu	Asp
			85						90					95	
Thr	Asp	Val	Arg	Gly	Arg	Arg	Lys	Lys	Lys	Thr	Pro	Arg	Lys	Ala	Glu
			100					105					110		
Asp	Thr	Arg	Glu	Asn	Arg	Lys	Leu	Glu	Asn	Lys	Asn	Ala	Phe	Leu	Glu
		115				120					125				
Lys	Lys	Thr	Val	Pro	Lys	Lys	Gln	Arg	Asn	Gln	Asp	Arg	Ser	Lys	Ser
		130				135					140				
Ala	Ala	Glu	Leu	Glu	Lys	Leu	Met	Pro	Val	Ser	Ala	Gln	Thr	Pro	Lys
145					150					155				160	
Gly	Arg	Arg	Leu	Ser	Gly	Glu	Glu	Arg	Gly	Leu	Trp	Ser	Thr	Asp	Ser
			165						170					175	
Ala	Glu	Glu	Asp	Lys	Glu	Thr	Lys	Arg	Asn	Glu	Ser	Lys	Glu	Lys	Tyr
		180						185					190		
Gln	Lys	Arg	His	Asp	Ser	Asp	Lys	Glu	Glu	Lys	Gly	Arg	Lys	Glu	Pro
		195					200					205			
Lys	Gly	Leu	Lys	Thr	Leu	Lys	Glu	Ile	Arg	Asn	Ala	Phe	Asp	Leu	Phe
	210					215					220				
Lys	Leu	Thr	Pro	Glu	Glu	Lys	Asn	Asp	Val	Ser	Glu	Asn	Asn	Arg	Lys
225					230					235				240	
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2156

<210> 2928  
 <211> 292  
 <212> PRT  
 <213> Homo sapiens

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 35 40 45  
 Glu Ala Ile Met Ala Gln Gln Asp Arg Ile Gln Gln Glu Ile Ala Val  
 50 55 60  
 Gln Asn Pro Leu Val Ser Glu Arg Leu Glu Leu Ser Val Leu Tyr Lys  
 65 70 75 80  
 Glu Tyr Ala Glu Asp Asp Asn Ile Tyr Gln Lys Ile Lys Asp Leu  
 85 90 95  
 His Lys Lys Tyr Ser Tyr Ile Arg Lys Thr Arg Pro Asp Gly Asn Cys  
 100 105 110  
 Phe Tyr Arg Ala Phe Gly Phe Ser His Leu Glu Ala Leu Leu Asp Asp  
 115 120 125  
 Ser Lys Glu Leu Gln Arg Phe Lys Ala Val Ser Ala Lys Ser Lys Glu  
 130 135 140  
 Asp Leu Val Ser Gln Gly Phe Thr Glu Phe Thr Ile Glu Asp Phe His  
 145 150 155 160  
 Asn Thr Phe Met Asp Leu Ile Glu Gln Val Glu Lys Gln Thr Ser Val  
 165 170 175  
 Ala Asp Leu Leu Ala Ser Phe Asn Asp Gln Ser Thr Ser Asp Tyr Leu  
 180 185 190  
 Val Val Tyr Leu Arg Leu Leu Thr Ser Gly Tyr Leu Gln Arg Glu Ser  
 195 200 205  
 Lys Phe Phe Glu His Phe Ile Glu Gly Gly Arg Thr Val Lys Glu Phe  
 210 215 220  
 Cys Gln Gln Glu Val Glu Pro Met Cys Lys Glu Ser Asp His Ile His  
 225 230 235 240  
 Ile Ile Ala Leu Ala Gln Ala Leu Ser Val Ser Ile Gln Val Glu Tyr  
 245 250 255  
 Met Asp Arg Gly Glu Gly Gly Thr Thr Asn Pro His Ile Phe Pro Glu  
 260 265 270  
 Gly Ser Glu Pro Lys Val Tyr Leu Leu Tyr Arg Pro Gly His Tyr Asp  
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 Ile Leu Tyr Lys  
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<210> 2929  
 <211> 4920  
 <212> DNA  
 <213> Homo sapiens

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360  
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420  
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1980  
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&lt;210&gt; 2930

&lt;211&gt; 1166

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2930

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Pro Lys Ala Lys Ala Pro Leu Pro Pro Ala Glu Thr Lys Tyr Thr Asp
      20              25              30
Val Ser Ser Ala Ala Asp Ser Val Glu Ser Thr Ala Phe Ile Met Glu
      35              40              45
Gln Lys Glu Asn Met Ile Asp Lys Asp Val Glu Leu Ser Val Val Leu
 50              55              60
Pro Gly Asp Ile Ile Lys Ser Thr Thr Val His Gly Ser Lys Pro Met
65              70              75              80
Met Asp Leu Leu Ile Phe Leu Cys Ala Gln Tyr His Leu Asn Pro Ser
      85              90              95
Ser Tyr Thr Ile Asp Leu Leu Ser Ala Glu Gln Asn His Ile Lys Phe
      100              105              110
Lys Pro Asn Thr Pro Ile Gly Met Leu Glu Val Glu Lys Val Ile Leu
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Lys Pro Lys Met Leu Asp Lys Lys Lys Pro Thr Pro Ile Ile Pro Glu
      130              135              140
Lys Thr Val Arg Val Val Ile Asn Phe Lys Lys Thr Gln Lys Thr Ile
145              150              155              160
Val Arg Val Ser Pro His Ala Ser Leu Gln Glu Leu Ala Pro Ile Ile
      165              170              175
Cys Ser Lys Cys Glu Phe Asp Pro Leu His Thr Leu Leu Leu Lys Asp
      180              185              190
Tyr Gln Ser Gln Glu Pro Leu Asp Leu Thr Lys Ser Leu Asn Asp Leu
      195              200              205
Gly Leu Arg Glu Leu Tyr Ala Met Asp Val Asn Arg Glu Ser Cys Gln
      210              215              220
Ile Ser Gln Asn Leu Asp Ile Met Lys Glu Lys Glu Asn Lys Gly Phe
225              230              235              240
Phe Ser Phe Phe Gln Arg Ser Lys Lys Lys Arg Asp Gln Thr Ala Ser
      245              250              255
Ala Pro Ala Thr Pro Leu Val Asn Lys His Arg Pro Thr Phe Thr Arg
      260              265              270
Ser Asn Thr Ile Ser Lys Pro Tyr Ile Ser Asn Thr Leu Pro Ser Asp
      275              280              285
Ala Pro Lys Lys Arg Arg Ala Pro Leu Pro Pro Met Pro Ala Ser Gln
      290              295              300
Ser Val Pro Gln Asp Leu Ala His Ile Gln Glu Arg Pro Ala Ser Cys
305              310              315              320
Ile Val Lys Ser Met Ser Val Asp Glu Thr Asp Lys Ser Pro Cys Glu
      325              330              335
Ala Gly Arg Val Arg Ala Gly Ser Leu Gln Leu Ser Ser Met Ser Ala
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Gly Asn Ser Ser Leu Arg Arg Thr Lys Arg Lys Ala Pro Ser Pro Pro
      355              360              365
Ser Lys Ile Pro Pro His Gln Ser Asp Glu Asn Ser Arg Val Thr Ala

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385	390	395
Ser Pro Glu Glu Leu Ser Ser Pro Glu Thr Phe His Pro Gly Leu Ser		400
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Ser Gln Glu Gln Cys Thr Ala Pro Lys Leu Met Glu Glu Thr Ser Val		415
	420	425
Phe Glu Cys Pro Gly Thr Pro Glu Ala Ala Ile Thr Ser Leu Thr Ser		430
	435	440
Gly Ile Ser Ser Asp Tyr Ser Leu Glu Glu Ile Asp Glu Lys Glu Glu		445
	450	455
Leu Ser Glu Val Pro Lys Val Glu Ala Glu Asn Ile Ser Pro Lys Ser		460
465	470	475
Gln Asp Ile Pro Phe Val Ser Thr Asp Ile Ile Asn Thr Leu Lys Asn		480
	485	490
Asp Pro Asp Ser Ala Leu Gly Asn Gly Ser Gly Glu Phe Ser Gln Asn		495
	500	505
Ser Met Glu Glu Lys Gln Glu Thr Lys Ser Thr Asp Gly Gln Glu Pro		510
	515	520
His Ser Val Val Tyr Asp Thr Ser Asn Gly Lys Lys Val Val Asp Ser		525
	530	535
Ile Arg Asn Leu Lys Ser Leu Gly Pro Asn Gln Glu Asn Val Gln Asn		540
545	550	555
Glu Ile Ile Val Tyr Pro Glu Asn Thr Glu Asp Asn Met Lys Asn Gly		560
	565	570
Val Lys Lys Thr Glu Ile Asn Val Glu Gly Val Ala Lys Asn Asn Asn		575
	580	585
Ile Asp Met Glu Val Glu Arg Pro Ser Asn Ser Glu Ala His Glu Thr		590
	595	600
Asp Thr Ala Ile Ser Tyr Lys Glu Asn His Leu Ala Ala Ser Ser Val		605
	610	615
Pro Asp Gln Lys Leu Asn Gln Pro Ser Ala Glu Lys Thr Lys Asp Ala		620
625	630	635
Ala Ile Gln Thr Thr Pro Ser Cys Asn Ser Phe Asp Gly Lys His Gln		640
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Asp His Asn Leu Ser Asp Ser Lys Val Glu Glu Cys Val Gln Thr Ser		655
	660	665
Asn Asn Asn Ile Ser Thr Gln His Ser Cys Leu Ser Ser Gln Asp Ser		670
	675	680
Val Asn Thr Ser Arg Glu Phe Arg Ser Gln Gly Thr Leu Ile Ile His		685
	690	695
Ser Glu Asp Pro Leu Thr Val Lys Asp Pro Ile Cys Ala His Gly Asn		700
705	710	715
Asp Asp Leu Leu Pro Pro Val Asp Arg Ile Asp Lys Asn Ser Thr Ala		720
	725	730
Ser Tyr Leu Lys Asn Tyr Pro Leu Tyr Arg Gln Asp Tyr Asn Pro Lys		735
	740	745
Pro Lys Pro Ser Asn Glu Ile Thr Arg Glu Tyr Ile Pro Lys Ile Gly		750
	755	760
Met Thr Thr Tyr Lys Ile Val Pro Pro Lys Ser Leu Glu Ile Ser Lys		765
	770	775
Asp Trp Gln Ser Glu Thr Ile Glu Tyr Lys Asp Asp Gln Asp Met His		780
785	790	795
Ala Leu Gly Lys Lys His Thr His Glu Asn Val Lys Glu Thr Ala Ile		800

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<210> 2932

<211> 90

<212> PRT

<213> Homo sapiens

<400> 2932

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Ser	Pro	Gly	Glu	Thr	Gly	Val	Pro	Trp	Arg	Ala	Asp	Asn	Val	Glu	Ser
		20					25					30			
Asn	Lys	Lys	Lys	Arg	Leu	Ala	Leu	Asp	Ser	Glu	Ala	Ala	Val	Ser	Ala
		35				40					45				
Asp	Lys	Pro	Asp	Ser	Val	Leu	Thr	His	His	Val	Pro	Arg	Asn	Leu	Gln
	50				55					60					
Lys	Leu	Cys	Lys	Glu	Arg	Ala	Gln	Lys	Leu	Cys	Arg	Asn	Ser	Thr	Arg
65				70					75					80	
Val	Pro	Ala	Gln	Cys	Thr	Val	Pro	Ser	Arg						
			85					90							

<210> 2933

<211> 688

<212> DNA

<213> Homo sapiens

<400> 2933

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 120  
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 240

cttgagacac agaacaataa tttgcaggct cagattcttg cacttcagag gcagacagtg  
 300  
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 360  
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 420  
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 660  
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 688

<210> 2934

<211> 229

<212> PRT

<213> Homo sapiens

<400> 2934

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			20					25					30		
Ser	Gly	Glu	Asp	Asn	Lys	Trp	Glu	Arg	Glu	Ser	Gln	Glu	Thr	Thr	Arg
	35						40					45			
Glu	Leu	Leu	Lys	Val	Lys	Asp	Arg	Leu	Ile	Glu	Val	Glu	Arg	Asn	Asn
	50					55					60				
Ala	Thr	Leu	Gln	Ala	Glu	Lys	Gln	Ala	Leu	Lys	Thr	Gln	Leu	Lys	Gln
65					70					75					80
Leu	Glu	Thr	Gln	Asn	Asn	Asn	Leu	Gln	Ala	Gln	Ile	Leu	Ala	Leu	Gln
				85					90					95	
Arg	Gln	Thr	Val	Ser	Leu	Gln	Glu	Gln	Asn	Thr	Thr	Leu	Gln	Thr	Gln
			100					105					110		
Asn	Ala	Lys	Leu	Gln	Val	Glu	Asn	Ser	Thr	Leu	Asn	Ser	Gln	Ser	Thr
		115					120					125			
Ser	Leu	Met	Asn	Gln	Asn	Ala	Gln	Leu	Leu	Ile	Gln	Gln	Ser	Ser	Leu
	130					135					140				
Glu	Asn	Glu	Asn	Glu	Ser	Val	Ile	Lys	Glu	Arg	Glu	Asp	Leu	Lys	Ser
145					150					155					160
Leu	Tyr	Asp	Ser	Leu	Ile	Lys	Asp	His	Glu	Lys	Leu	Glu	Leu	Leu	His
				165					170					175	
Glu	Arg	Gln	Ala	Ser	Glu	Tyr	Glu	Ser	Leu	Ile	Ser	Lys	His	Gly	Thr
			180					185					190		
Leu	Lys	Ser	Ala	His	Lys	Asn	Leu	Glu	Val	Glu	His	Arg	Asp	Leu	Glu
		195					200						205		
Asp	Arg	Tyr	Asn	Gln	Leu	Leu	Lys	Gln	Lys	Gly	Gln	Leu	Glu	Asp	Leu
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<212> DNA  
<213> Homo sapiens

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480  
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<210> 2936  
<211> 109  
<212> PRT  
<213> Homo sapiens

<400> 2936  
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Val Lys Val Lys Met Glu Lys Lys Ser Thr Pro Ser Arg Gly Ser Ser
      35             40             45
Ser Lys Ser Ser Ser Arg Gln Leu Ser Glu Ser Phe Lys Ser Lys Glu
      50             55             60
Phe Val Ser Ser Asp Glu Ser Ser Ser Gly Glu Asn Lys Ser Lys Lys
      65             70             75             80
Lys Arg Arg Arg Ser Glu Asp Ser Glu Glu Glu Glu Leu Ala Ser Thr
      85             90             95
Pro Pro Ser Ser Glu Asp Ser Ala Ser Gly Ser Asp Glu
      100             105

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&lt;210&gt; 2937

&lt;211&gt; 749

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2937

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749

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&lt;210&gt; 2938

&lt;211&gt; 249

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2938

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Glu Ala Thr Gly Leu Pro Leu Asn Leu Ser Asn Phe Val Phe Cys Gln			
	35	40	45
Tyr Thr Phe Trp Asp Gln Cys Glu Ser Thr Val Ala Ala Pro Val Val			
	50	55	60
Asp Pro Glu Val Pro Ser Pro Gln Ser Lys Asp Ala Gln Tyr Thr Val			
65	70	75	80
Thr Phe Ser His Cys Lys Asp Tyr Val Val Asn Val Thr Glu Glu Phe			
	85	90	95
Leu Glu Phe Ile Ser Asp Gly Ala Leu Ala Ile Glu Val Trp Gly His			
	100	105	110
Arg Cys Ala Gly Asn Gly Ser Ser Ile Trp Glu Val Asp Ser Leu His			
	115	120	125
Ala Lys Thr Arg Thr Leu His Asp Arg Trp Asn Glu Val Thr Arg Arg			
	130	135	140
Ile Glu Met Trp Ile Ser Ile Leu Glu Leu Asn Glu Leu Gly Glu Tyr			
145	150	155	160
Ala Ala Val Glu Leu His Gln Ala Lys Asp Val Asn Thr Gly Gly Ile			
	165	170	175
Phe Gln Leu Arg Gln Gly His Ser Arg Arg Val Gln Val Thr Val Lys			
	180	185	190
Pro Val Gln His Ser Gly Thr Leu Pro Leu Met Val Glu Ala Ile Leu			
	195	200	205
Ser Val Ser Ile Gly Cys Val Thr Ala Arg Ser Thr Lys Leu Gln Arg			
	210	215	220
Gly Leu Asp Ser Tyr Gln Arg Asp Asp Glu Asp Gly Asp Asp Met Asp			
225	230	235	240
Ser Tyr Gln Glu Glu Asp Leu Asn Cys			
	245		

&lt;210&gt; 2939

&lt;211&gt; 2405

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2939

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480

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<211> 357

<212> PRT

<213> Homo sapiens

<400> 2940

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Tyr	Gly	Ser	Val	Thr	Phe	Thr	Val	Tyr	Gly	Thr	Pro	Lys	Pro	Lys	Arg	35	40	45	
Pro	Ala	Ile	Leu	Thr	Tyr	His	Asp	Val	Gly	Leu	Asn	Tyr	Lys	Ser	Cys	50	55	60	
Phe	Gln	Pro	Leu	Phe	Gln	Phe	Glu	Asp	Met	Gln	Glu	Ile	Ile	Gln	Asn	65	70	75	80
Phe	Val	Arg	Val	His	Val	Asp	Ala	Pro	Gly	Met	Glu	Glu	Gly	Ala	Pro	85	90	95	
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His	Pro	Asp	Thr	Val	Glu	Gly	Leu	Val	Leu	Ile	Asn	Ile	Asp	Pro	Asn	145	150	155	160
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Cys	Pro	Val	Met	Leu	Val	Val	Gly	Asp	Gln	Ala	Pro	His	Glu	Asp	Ala	245	250	255	
Val	Val	Glu	Cys	Asn	Ser	Lys	Leu	Asp	Pro	Thr	Gln	Thr	Ser	Phe	Leu	260	265	270	
Lys	Met	Ala	Asp	Ser	Gly	Gly	Gln	Pro	Gln	Leu	Thr	Gln	Pro	Gly	Lys				

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&lt;211&gt; 847

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2941

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&lt;210&gt; 2942

&lt;211&gt; 229

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2942

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 35 40 45  
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 Ser Val Glu Ala Pro Ala Ala Pro Arg Pro Thr Ala Thr Gln Leu Thr  
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 Arg Asp Leu Leu Arg Ser Arg Gly Ile Ala Gly Leu Tyr Lys Gly Leu  
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 180 185 190  
 Gly Ala Tyr Cys Arg Ala Leu Val Ile Ala Pro Leu Phe Gly Ile Ala  
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&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2943

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<212> PRT

<213> Homo sapiens

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	50					55				60					
Ala	Leu	Arg	Val	Leu	Lys	Gln	Lys	Arg	Met	Tyr	Glu	Gln	Gln	Arg	Asp
65				70					75					80	
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 145 150 155 160  
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&lt;210&gt; 2946

&lt;211&gt; 463

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2946

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Gln	Asp	Ala	Ala	Gly	Arg	Gly	Gly	Thr	Pro	Gln	Ile	Arg	Val	Val	Gly
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<212> DNA
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&lt;211&gt; 332

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2948

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2179

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<211> 493

<212> PRT

<213> Homo sapiens

<400> 2952

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<212> DNA
<213> Homo sapiens
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<211> 181

<212> PRT

<213> Homo sapiens

<400> 2954

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Tyr	Ala	Ser	Ile	Lys	Ala	Ile	Glu	Ser	Pro	Ser	Lys	Asp	Asp	Asp	Thr
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Val	Trp	Leu	Thr	Tyr	Trp	Val	Val	Tyr	Ala	Leu	Phe	Gly	Leu	Ala	Glu
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Phe	Phe	Ser	Asp	Leu	Leu	Leu	Ser	Trp	Phe	Pro	Phe	Tyr	Tyr	Val	Gly
			100					105					110		
Lys	Cys	Ala	Phe	Leu	Leu	Phe	Cys	Met	Ala	Pro	Arg	Pro	Trp	Asn	Gly
		115					120					125			
Ala	Leu	Met	Leu	Tyr	Gln	Arg	Val	Val	Arg	Pro	Leu	Phe	Leu	Arg	His
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His	Gly	Ala	Val	Asp	Arg	Ile	Met	Asn	Asp	Leu	Ser	Gly	Arg	Ala	Leu
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1980

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&lt;400&gt; 2959

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<400> 2960

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 785 790 795 800  
 Pro Pro Tyr Pro Thr Tyr Pro Gly Tyr Pro Gly Tyr Cys Gln Met Pro  
 805 810 815  
 Met Pro Met Gly Tyr Asn Pro Tyr Ala Tyr Gly Gln Tyr Asn Met Pro  
 820 825 830  
 Tyr Pro Pro Val Tyr His Gln Ser Pro Gly Gln Ala Pro Tyr Pro Gly  
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 Tyr Pro Gln Gln  
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&lt;210&gt; 2961

&lt;211&gt; 434

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2961

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<210> 2962  
 <211> 92  
 <212> PRT  
 <213> Homo sapiens

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 Pro Asp Glu Asp Leu Ser Xaa Arg Asn Lys Glu Pro Pro Ala Pro Ala  
 35 40 45  
 Gln Gln Leu Gln Pro Gln Pro Val Ala Val Gln Gly Pro Glu Pro Ala  
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 <213> Homo sapiens

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<210> 2964  
 <211> 115  
 <212> PRT

<213> Homo sapiens

<400> 2964

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Gly Trp Arg Gly Asp Thr Cys Gln Ser Gly Glu Ala Gly Ser Thr Leu
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Gly Gly Pro Gly Arg Val Trp Gly Thr Ser Leu His Val Val Gly Leu
      50           55           60
Leu Met Val His Glu Trp Val Val Val Lys Gly Ala Val Trp Ala Gly
65           70           75           80
Pro Leu Pro Gln Ala Trp Pro Pro Asp Thr Pro Phe Pro Ala Asp Val
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<210> 2965

<211> 3739

<212> DNA

<213> Homo sapiens

<400> 2965

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2199

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&lt;210&gt; 2966

&lt;211&gt; 386

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2966

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15

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<210> 2967
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<213> Homo sapiens

<400> 2967
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&lt;210&gt; 2968

&lt;211&gt; 126

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2968

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Gly	Pro	Ser	Lys	Ser	Pro	Ser	Gly	Val	Arg	Cys	Cys	Gly	Ala	Ala
			20					25					30	
Trp	Glu	Asp	Lys	Asp	Glu	Phe	Leu	Asp	Val	Ile	Tyr	Trp	Phe	Arg
			35					40					45	
Ile	Ile	Ala	Val	Val	Leu	Gly	Val	Ile	Trp	Gly	Val	Leu	Pro	Leu
			50					55					60	
Gly	Phe	Leu	Gly	Ile	Ala	Gly	Phe	Cys	Leu	Ile	Asn	Ala	Gly	Val
														Leu

65		70		75		80									
Tyr	Leu	Tyr	Phe	Ser	Asn	Tyr	Leu	Gln	Ile	Asp	Glu	Glu	Glu	Tyr	Gly
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Gly	Thr	Trp	Glu	Leu	Thr	Lys	Glu	Gly	Phe	Met	Thr	Ser	Phe	Ala	Xaa
			100					105					110		
Val	His	Gly	His	Leu	Asp	His	Leu	Leu	His	Cys	His	Pro	Leu		
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&lt;210&gt; 2969

&lt;211&gt; 667

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2969

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667

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&lt;210&gt; 2970

&lt;211&gt; 92

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2970

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			20				25					30			
Ser	Gln	Thr	Ile	Met	Ile	Ala	Trp	Gly	Ser	Pro	Ser	Asn	Arg	Asp	Phe
		35				40					45				
Met	Glu	Thr	Leu	Asn	Thr	Leu	Lys	Tyr	Ala	Asn	Arg	Ala	Arg	Asn	Ile
	50					55				60					
Lys	Asn	Lys	Val	Val	Val	Asn	Gln	Asp	Lys	Thr	Ala	Ser	Lys	Ser	Met

2204

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&lt;210&gt; 2972

&lt;211&gt; 632

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2972

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Ser Val Leu Leu Gly Arg Ser Ile Glu Ser Gly Glu Leu Ile Ala Ile
      20          25          30
Lys Lys Met Lys Arg Lys Phe Tyr Ser Trp Glu Glu Cys Met Asn Leu
      35          40          45
Arg Glu Val Lys Ser Leu Lys Lys Leu Asn His Ala Asn Val Val Lys
      50          55          60
Leu Lys Glu Val Ile Arg Glu Asn Asp His Leu Tyr Phe Ile Phe Glu
      65          70          75          80
Tyr Met Lys Glu Asn Leu Tyr Gln Leu Ile Lys Glu Arg Asn Lys Leu
      85          90          95
Phe Pro Glu Ser Ala Ile Arg Asn Ile Met Tyr Gln Ile Leu Gln Gly
      100          105          110
Leu Ala Phe Ile His Lys His Gly Phe Phe His Arg Asp Leu Lys Pro
      115          120          125
Glu Asn Leu Leu Cys Met Gly Pro Glu Leu Val Lys Ile Ala Asp Phe
      130          135          140
Gly Leu Ala Arg Glu Ile Arg Ser Lys Pro Pro Tyr Thr Asp Tyr Val
      145          150          155          160
Ser Thr Arg Trp Tyr Arg Ala Pro Glu Val Leu Leu Arg Ser Thr Asn
      165          170          175
Tyr Ser Ser Pro Ile Asp Val Trp Ala Val Gly Cys Ile Met Ala Glu
      180          185          190
Val Tyr Thr Leu Arg Pro Leu Phe Pro Gly Ala Ser Glu Ile Asp Thr
      195          200          205
Ile Phe Lys Ile Cys Gln Val Leu Gly Thr Pro Lys Lys Thr Asp Trp
      210          215          220
Pro Glu Gly Tyr Gln Leu Ser Ser Ala Met Asn Phe Arg Trp Pro Gln
      225          230          235          240
Cys Val Pro Asn Asn Leu Lys Thr Leu Ile Pro Asn Ala Ser Ser Glu
      245          250          255
Ala Val Gln Leu Leu Arg Asp Met Leu Gln Trp Asp Pro Lys Lys Arg
      260          265          270
Pro Thr Ala Ser Gln Ala Leu Arg Tyr Pro Tyr Phe Gln Val Gly His
      275          280          285
Pro Leu Gly Ser Thr Thr Gln Asn Leu Gln Asp Ser Glu Lys Pro Gln
      290          295          300
Lys Gly Ile Leu Glu Lys Ala Gly Pro Pro Pro Tyr Ile Lys Pro Val
      305          310          315          320
Pro Pro Ala Gln Pro Pro Ala Lys Pro His Thr Arg Ile Ser Ser Arg
      325          330          335
Gln His Gln Ala Ser Gln Pro Pro Leu His Leu Thr Tyr Pro Tyr Lys
      340          345          350
Ala Glu Val Ser Arg Thr Asp His Pro Ser His Leu Gln Glu Asp Lys
      355          360          365
Pro Ser Pro Leu Leu Phe Pro Ser Leu His Asn Lys His Pro Gln Ser
      370          375          380
Lys Ile Thr Ala Gly Leu Glu His Lys Asn Gly Glu Ile Lys Pro Lys
      385          390          395          400
Ser Arg Arg Arg Trp Gly Leu Ile Ser Arg Ser Thr Lys Asp Ser Asp

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	405		410		415
Asp Trp Ala	Asp Leu Asp Asp Leu Asp Phe Ser Pro Ser Leu Ser Arg				
	420		425		430
Ile Asp Leu Lys Asn Lys Lys Arg Gln Ser Asp Asp Thr Leu Cys Arg					
	435		440		445
Phe Glu Ser Val Leu Asp Leu Lys Pro Ser Glu Pro Val Gly Thr Gly					
	450		455		460
Asn Ser Ala Pro Thr Gln Thr Ser Tyr Gln Arg Arg Asp Thr Pro Thr					
	465		470		475
Leu Arg Ser Ala Ala Lys Gln His Tyr Leu Lys His Ser Arg Tyr Leu					
	485		490		495
Pro Gly Ile Ser Ile Arg Asn Gly Ile Leu Ser Asn Pro Gly Lys Glu					
	500		505		510
Phe Ile Pro Pro Asn Pro Trp Ser Ser Ser Gly Leu Ser Gly Lys Ser					
	515		520		525
Ser Gly Thr Met Ser Val Ile Ser Lys Val Asn Ser Val Gly Ser Ser					
	530		535		540
Ser Thr Ser Ser Ser Gly Leu Thr Gly Asn Tyr Val Pro Ser Phe Leu					
	545		550		555
Lys Lys Glu Ile Gly Ser Ala Met Gln Arg Val His Leu Ala Pro Ile					
	565		570		575
Pro Asp Pro Ser Pro Gly Tyr Ser Ser Leu Lys Ala Met Arg Pro His					
	580		585		590
Pro Gly Arg Pro Phe Phe His Thr Gln Pro Arg Ser Thr Pro Gly Leu					
	595		600		605
Ile Pro Arg Pro Pro Ala Ala Gln Pro Val His Gly Arg Thr Asp Trp					
	610		615		620
Ala Ser Lys Tyr Ala Ser Arg Arg					
625	630				

&lt;210&gt; 2973

&lt;211&gt; 858

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2973

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60

gggcctgttg aagtggaaag tgccctggca gagcatcctg ctgtcctgga gtcggctgtg  
120

gtcagcagcc cagaccccat caggggagag gtggtaaagg catttatagt ccttactcca  
180

gcctactcct ctcatgaccc agaggcacta acgcgggaac tccaggagca tgtgaaaagg  
240

gtgactgtc catacaaaac cccaggaag gtggccttg tttcagaact gccaaagacg  
300

gtttctggaa agatccaaag gagtaaattg cgaagtcagg agtgggggaa atgaggtgca  
360

ccccaggaag gccctgtaga cctccgaaga ctccacaaga aactaatgga tcaactggta  
420

gtccccatgg ggagcatcat ctcttcgacc ctaaagatgt caaagggtgtg cagcttccaa  
480

acggcatccc caggatcact gggcaatgct ggaaagagca aaagaatatc attggccctg  
540

atcacataga tgctgcgcgc cctagcaaat gcttggtggt tcgacttctc cctctgtctg  
 600  
 ggggcaggct cagcatctgc ccactggtct cactaagagc tttcagattt ccctccatag  
 660  
 gacaggttac catagacttg gggcacttgt gggactcat tttctgccag tgggaatgta  
 720  
 aaggcttcac cctttgtatg taaccatttg gcaaaagtat gcaggaacat aaaataaaat  
 780  
 atcctttagc tcaaaaattc tatcttcggg agtcaccaca aaagaaaaaa atcaaaatgc  
 840  
 agaaaatgtg gagtgcac  
 858

<210> 2974

<211> 117

<212> PRT

<213> Homo sapiens

<400> 2974

Gly	Tyr	Phe	Trp	Phe	Met	Gly	Arg	Thr	Asp	Asp	Val	Ile	Asn	Ser	Ser
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Ser	Tyr	Arg	Ile	Gly	Pro	Val	Glu	Val	Glu	Ser	Ala	Leu	Ala	Glu	His
		20					25					30			
Pro	Ala	Val	Leu	Glu	Ser	Ala	Val	Val	Ser	Ser	Pro	Asp	Pro	Ile	Arg
		35					40					45			
Gly	Glu	Val	Val	Lys	Ala	Phe	Ile	Val	Leu	Thr	Pro	Ala	Tyr	Ser	Ser
	50					55					60				
His	Asp	Pro	Glu	Ala	Leu	Thr	Arg	Glu	Leu	Gln	Glu	His	Val	Lys	Arg
65					70				75					80	
Val	Thr	Ala	Pro	Tyr	Lys	Thr	Pro	Arg	Lys	Val	Ala	Phe	Val	Ser	Glu
			85					90					95		
Leu	Pro	Lys	Thr	Val	Ser	Gly	Lys	Ile	Gln	Arg	Ser	Lys	Leu	Arg	Ser
			100				105						110		
Gln	Glu	Trp	Gly	Lys											
			115												

<210> 2975

<211> 1425

<212> DNA

<213> Homo sapiens

<400> 2975

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 gacacaatgt atacggtcaa tggcgctccac ccactgaccc tgcgctggga agagaccgc  
 120  
 acaccagaat cccagccaga tactccgcct ggcacccctc tgggtgtcca agatgagaag  
 180  
 agagatgctg agctgccgaa gaagcgtatg gggagtgcaa accccggctg ggagaacttg  
 240  
 gagaagttgc tagtggtcac cgcagctggg gtgaaaccgg ggnncaaggt ggctggcttt  
 300  
 gatctggacg ggacgctcat caccacacgc tctgggaagg tctttccac tggccccagt  
 360

gactggagga tcttgtaccc agagattccc cgtaagctcc gagagctgga agccgagggc  
 420  
 tacaagctgg tgatcttcac caaccagatg agcatcgggc gcgggaagct gccagccgag  
 480  
 gagttcaagg ccaaggtgga ggctgtggtg gagaagctgg ggggtcccctt ccaggtgctg  
 540  
 gtggccacgc acgcaggctt gtaccggaag ccggtgacgg gcatgtggga ccatctgcag  
 600  
 gagcaggcca acgacggcac gcccatatcc atcggggaca gcatctttgt gggagacgca  
 660  
 gccggacgcc cgccaactg ggccccgggg cggaagaaga aagacttctc ctgcgccgat  
 720  
 cgctgtttg ccctcaacct tggcctgccc ttcgccacgc ctgaggagt ctttctcaag  
 780  
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 gtgggattcc ctggggccgg gaagtccacc tttctcaaga agcacctcgt gtcggccgga  
 960  
 tatgtccacg tgacagggac acgctaggct cctggcagcg ctgtgtgacc acgtgtgaga  
 1020  
 cagccctgaa gcaagggaaa cgggtcgcca tcgacaacac aaaccagac gccgcgagcc  
 1080  
 gcgccaggta cgtccagtgt gcccgagccg cgggcgtccc ctgccgctgc ttcctcttca  
 1140  
 ccgccactct ggagcaggcg cgccacaaca accggtttcg agagatgacg gactcctctc  
 1200  
 atatccccgt gtcagacatg gtcatttatg gctacaggaa gcagttcgag gcccacacg  
 1260  
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 1320  
 tggggcggct gtactgccag ttctccgagg gctgagcccg ccagctccc ctccacaata  
 1380  
 aacgctgttt ctcttgaaa aaaaaaaaaa aaaaaaaaaa aaaaa  
 1425

&lt;210&gt; 2976

&lt;211&gt; 328

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2976

Pro Ser Thr Thr Gly Thr Gln Glu Leu Lys Pro Gly Leu Glu Gly Ser  
 1 5 10 15  
 Leu Gly Val Gly Asp Thr Met Tyr Thr Val Asn Gly Val His Pro Leu  
 20 25 30  
 Thr Leu Arg Trp Glu Glu Thr Arg Thr Pro Glu Ser Gln Pro Asp Thr  
 35 40 45  
 Pro Pro Gly Thr Pro Leu Val Ser Gln Asp Glu Lys Arg Asp Ala Glu  
 50 55 60  
 Leu Pro Lys Lys Arg Met Gly Lys Ser Asn Pro Gly Trp Glu Asn Leu  
 65 70 75 80  
 Glu Lys Leu Leu Val Phe Thr Ala Ala Gly Val Lys Pro Gly Xaa Lys

```
<210> 2977
<211> 1420
<212> DNA
<213> Homo sapiens
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2212

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 600  
 gcatggctag caggaggcac agtgtaccgc ggggagactg cctccctgct gtgcaacatc  
 660  
 tctgtgcggg gtggccccc aggactgcgg ctggccgcca gctggtgggt ggagcgacca  
 720  
 gaggacggag agctcagctc tgtccctgcc cagctggtgg gtggcgtagg ccaggatggt  
 780  
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 840  
 cgaagccatc ggctgagact acacagcttg gggcccgagg atgaaggcgt gtaccactgt  
 900  
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 960  
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 1020  
 ctggtgggta caggggtggc cctagtcact ggtgccactg tccttggtac catcacttgc  
 1080  
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 1140  
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 1200  
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 1260  
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 1320  
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 1380  
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 1420

&lt;210&gt; 2978

&lt;211&gt; 369

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2978

Xaa	Ser	Asn	Ile	His	Ala	Glu	Tyr	Arg	Met	Val	Val	Gly	Gly	Ala	Gln
1				5					10					15	
Ala	Gly	Asp	Ala	Gly	Thr	Tyr	His	Cys	Thr	Ala	Ala	Glu	Trp	Ile	Gln
			20					25					30		
Asp	Pro	Asp	Gly	Ser	Trp	Ala	Gln	Ile	Ala	Glu	Lys	Arg	Ala	Val	Leu
			35				40					45			
Ala	His	Val	Asp	Val	Gln	Thr	Leu	Ser	Ser	Gln	Leu	Ala	Val	Thr	Val
			50				55				60				
Gly	Pro	Gly	Glu	Arg	Arg	Ile	Gly	Pro	Gly	Glu	Pro	Leu	Glu	Leu	Leu
65				70						75				80	
Cys	Asn	Val	Ser	Gly	Ala	Leu	Pro	Pro	Ala	Gly	Arg	His	Ala	Ala	Tyr
				85					90					95	
Ser	Val	Gly	Trp	Glu	Met	Ala	Pro	Ala	Gly	Ala	Pro	Gly	Pro	Gly	Arg
				100					105					110	
Leu	Val	Ala	Gln	Leu	Asp	Thr	Glu	Gly	Val	Gly	Ser	Leu	Xaa	Ala	Leu

```

      115              120              125
Ala Met Arg Ala Asp Xaa Ile Ala Met Glu Lys Val Ala Ser Arg Thr
      130              135              140
Tyr Arg Leu Arg Leu Glu Ala Ala Arg Pro Gly Asp Ala Gly Thr Tyr
145              150              155              160
Arg Cys Leu Ala Lys Ala Tyr Val Arg Gly Ser Gly Thr Arg Leu Arg
      165              170              175
Glu Ala Ala Ser Ala Arg Ser Arg Pro Leu Pro Val His Val Arg Glu
      180              185              190
Glu Gly Val Val Leu Glu Ala Val Ala Trp Leu Ala Gly Gly Thr Val
      195              200              205
Tyr Arg Gly Glu Thr Ala Ser Leu Leu Cys Asn Ile Ser Val Arg Gly
      210              215              220
Gly Pro Pro Gly Leu Arg Leu Ala Ala Ser Trp Trp Val Glu Arg Pro
225              230              235              240
Glu Asp Gly Glu Leu Ser Ser Val Pro Ala Gln Leu Val Gly Gly Val
      245              250              255
Gly Gln Asp Gly Val Ala Glu Leu Gly Val Arg Pro Gly Gly Gly Pro
      260              265              270
Val Ser Val Glu Leu Val Gly Pro Arg Ser His Arg Leu Arg Leu His
      275              280              285
Ser Leu Gly Pro Glu Asp Glu Gly Val Tyr His Cys Ala Pro Ser Ala
      290              295              300
Trp Val Gln His Ala Asp Tyr Ser Trp Tyr Gln Ala Gly Ser Ala Arg
305              310              315              320
Ser Gly Pro Val Thr Val Tyr Pro Tyr Met His Ala Leu Asp Thr Leu
      325              330              335
Phe Val Pro Leu Leu Val Gly Thr Gly Val Ala Leu Val Thr Gly Ala
      340              345              350
Thr Val Leu Gly Thr Ile Thr Cys Cys Phe Met Lys Arg Leu Arg Lys
      355              360              365
Arg

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&lt;210&gt; 2979

&lt;211&gt; 2191

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2979

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60
tcagctaaca ttcattctcg acctagacaa aaacaattag atgattatga cttgcttttc
120
catcatcaac tcattttttt gtatgaataa ccaaaaaatt ttttcaacac ttttttttaa
180
gaagaagcta taaataaata aagcttttaa caatcctggg ttcaagttaa acagttccag
240
ttcccgaaaa gttcacagcc ttgttttggt ggcagttctg ctgttctctg cttccccctc
300
caggagggga cgtttgcagg tctgggggtc ctggtgacta agctgttagc tccactccct
360
gcctgtttcc gtcctcacag ccctggggagg gccccggtgg acagagtcct tacaatttag
420

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480  
ggctggacac ttgggggctg agggcactgc cagctgccgc cgctcttga cactcagcc  
540  
cggcgctggc ccgagaggag actgctttcc aaatgcagcg aagagactga gacaagaccc  
600  
gtgcttccgt gtgagttggg atgcggggca taagttaaca catattccaa tatgtacaaa  
660  
acaacctgcg ctcaggcccg cgcacccagg aagcccatgg tgaaggtag gtcaccttga  
720  
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780  
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900  
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1020  
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1080  
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1260  
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1320  
cctgtgtggg ccctcctaga gacaccagct tggcctccta gggcataagg aatggggaca  
1380  
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1440  
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1680  
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1800  
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1980  
ggcaatgcag ctcgggccta ctacccaaac ccctggcaaa aggtgggcca tgctctgttc  
2040

ccagcagccg cgcaggtttc cccactggct gcaatggccc taccaaaagc catgttgcat  
 2100  
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 2160  
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 2191

<210> 2980  
 <211> 140  
 <212> PRT  
 <213> Homo sapiens

<400> 2980  
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 Gly Thr Glu His Gly Gln Pro Phe Ala Arg Gly Trp Gly Ala Trp Gly  
 35 40 45  
 Asn Ala Arg Arg Ala Arg Val Gly Arg Ala Glu Cys Leu Leu Ser Gly  
 50 55 60  
 Arg Pro Pro Thr Ala Val Leu Pro Arg Leu Val Glu Asn Leu Lys Ala  
 65 70 75 80  
 Arg Val Pro Val Pro Gly His Thr Glu Pro Leu Trp Ser Glu Gly Thr  
 85 90 95  
 Ala Pro Gly Gln Gly Leu Trp Ser His Ala Pro Ala Asp Gly Ser Leu  
 100 105 110  
 Met Asn Leu Ile Arg Thr Leu Val Gly Ala Val Val Phe Glu Leu Leu  
 115 120 125  
 Ser Met Cys Phe Gly Asp Gly Ala Gly Ala Ala Cys  
 130 135 140

<210> 2981  
 <211> 617  
 <212> DNA  
 <213> Homo sapiens

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 240  
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 300  
 ccggagcagg aggtgccga ggcagattta tccaatatgg aaagggtatc tctctcgacg  
 360  
 gcagaccccc aaggagtgc ctatgctgag ctaagcacca gcgccctgtc tgaggcagct  
 420  
 tcagacacca cccaggagcc cccaggatct catgaatatg cggcactgaa agtgtagcaa  
 480



gaagacagcc ctggccacta aaagaggggg gatcgtgctg gccaaaggta tcggaaatct  
 540  
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 tcttaaaaaa aaaaaaa  
 617

<210> 2982

<211> 107

<212> PRT

<213> Homo sapiens

<400> 2982

Lys	Gln	Thr	Pro	Glu	Pro	Ser	Leu	Ser	Pro	Ser	Ser	Ala	Ala	Ser	Pro
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Ser	Phe	Ser	Ser	Ser	Ser	Gln	Ser	Ser	Ser	Ser	Thr	Asp	Ala	Xaa	Gln
			20					25					30		
His	Ser	Ser	Ser	Ser	Glu	Glu	Ser	Thr	Lys	Arg	Thr	Ser	His	Ser	Lys
		35					40					45			
Leu	Pro	Glu	Gln	Glu	Ala	Ala	Glu	Ala	Asp	Leu	Ser	Asn	Met	Glu	Arg
		50				55					60				
Val	Ser	Leu	Ser	Thr	Ala	Asp	Pro	Gln	Gly	Val	Thr	Tyr	Ala	Glu	Leu
65					70					75				80	
Ser	Thr	Ser	Ala	Leu	Ser	Glu	Ala	Ala	Ser	Asp	Thr	Thr	Gln	Glu	Pro
				85					90					95	
Pro	Gly	Ser	His	Glu	Tyr	Ala	Ala	Leu	Lys	Val					
			100					105							

<210> 2983

<211> 614

<212> DNA

<213> Homo sapiens

<400> 2983

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 120  
 gcaatgatcg tgcgcttctt gaccaagaga ttcatggag actatgaacc gaatacaggc  
 180  
 aagctgtatt cacggctggt ctatgtcgag ggggaccagc tctccctgca gatccaggat  
 240  
 actcccgggg gcgtccagat ccaagacagc ctcccccagg tcgtcgattc cctgcaaattg  
 300  
 cgtgcagtgg ccgagggttt tctgctggtc tattccatca cagactatga cagctacttg  
 360  
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 420  
 atcatcgtgg gcaacaaggg ggaccttttg catgcccggc aggtgcagac acaggacggg  
 480  
 attcagctag ccaatgagct gggcagcctg ttccttgaaa tttccactag cgaaaactac  
 540  
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agtggggaaa gaag  
614

<210> 2984  
<211> 204  
<212> PRT  
<213> Homo sapiens

<400> 2984  
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20 25 30  
Gly Ala Gly Arg Val Gly Lys Ser Ala Met Ile Val Arg Phe Leu Thr  
35 40 45  
Lys Arg Phe Ile Gly Asp Tyr Glu Pro Asn Thr Gly Lys Leu Tyr Ser  
50 55 60  
Arg Leu Val Tyr Val Glu Gly Asp Gln Leu Ser Leu Gln Ile Gln Asp  
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<212> DNA  
<213> Homo sapiens

<400> 2985  
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&lt;210&gt; 2986

&lt;211&gt; 988

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2986

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2222

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Leu	Glu	Ala	Glu	Phe	Lys	Lys	Gly	Asn	Arg	Tyr	Ile	Arg	Cys	Gln	Lys
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985

&lt;210&gt; 2987

&lt;211&gt; 1016

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2987

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&lt;210&gt; 2988

&lt;211&gt; 95

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2988

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 <213> Homo sapiens

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<210> 2992

<211> 64

<212> PRT

<213> Homo sapiens

<400> 2992

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<211> 687

<212> DNA

<213> Homo sapiens

<400> 2993

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<210> 2994

<211> 229

<212> PRT

<213> Homo sapiens

<400> 2994

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20 25 30  
Ala Val Ala Thr Ser Pro Asp Gly Arg Tyr Leu Lys Phe Asp Ile Glu  
35 40 45  
Ile Gly Arg Gly Ser Phe Lys Thr Val Tyr Arg Gly Leu Asp Thr Asp  
50 55 60  
Thr Thr Val Glu Val Ala Trp Cys Glu Leu Gln Thr Arg Lys Leu Ser  
65 70 75 80  
Arg Ala Glu Arg Gln Arg Phe Ser Glu Glu Val Glu Met Leu Lys Gly  
85 90 95  
Leu Gln His Pro Asn Ile Val Arg Phe Tyr Asp Ser Trp Lys Ser Val  
100 105 110  
Leu Arg Gly Gln Val Cys Ile Val Leu Val Thr Glu Leu Met Thr Ser  
115 120 125  
Gly Thr Leu Lys Thr Tyr Leu Arg Arg Phe Arg Glu Met Lys Pro Arg  
130 135 140  
Val Leu Gln Arg Trp Ser Arg Gln Ile Leu Arg Gly Leu His Phe Leu  
145 150 155 160  
His Ser Arg Val Pro Pro Ile Leu His Arg Asp Leu Lys Cys Asp Asn  
165 170 175  
Val Phe Ile Thr Gly Pro Thr Gly Ser Val Lys Ile Gly Asp Leu Gly  
180 185 190  
Leu Ala Thr Leu Lys Arg Ala Ser Phe Ala Lys Ser Val Ile Gly Thr  
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Pro Glu Phe Met Ala Pro Glu Met Tyr Glu Glu Lys Tyr Asp Glu Ala  
210 215 220  
Val Asp Val Tyr Ala  
225

<210> 2995

<211> 1879

<212> DNA

<213> Homo sapiens

<400> 2995

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1879

<210> 2996

<211> 101

<212> PRT

<213> Homo sapiens

<400> 2996

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Ile	Phe	Thr	Leu	Leu	Leu	Leu	Leu	Leu	Phe	Leu	Arg	Trp	Ser	Leu	Thr
			20					25					30		
Leu	Xaa	Thr	Gln	Ala	Gly	Ile	Gln	Trp	Cys	Asp	Leu	Ser	Ser	Leu	Gln
		35					40					45			
Pro	Pro	Pro	Pro	Arg	Phe	Lys	Arg	Phe	Ser	Cys	Leu	Ser	Leu	Leu	Ser
		50				55					60				
Ser	Trp	Asp	Ser	Asp	Arg	Cys	Leu	Pro	Pro	His	Pro	Gly	Asp	Phe	Cys
65					70					75					80
Ile	Phe	Ser	Arg	Asp	Gly	Val	Ser	Pro	Cys	Cys	Ser	Gly	Trp	Ser	Arg
				85					90						95
Thr	Pro	Asp	Leu	Lys											
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<210> 2997

<211> 800

<212> DNA

<213> Homo sapiens

<400> 2997

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120  
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180  
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240  
actgttcctt acaaggcact cactagtgcc acgattgagg actccatgac acaagtcattg  
300  
tcctctagca gaggacctag ccctgatcag tccacaatgt cacaagacat atccactgaa  
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<210> 2998  
 <211> 266  
 <212> PRT  
 <213> Homo sapiens

<400> 2998  
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 35 40 45  
 Ile Thr Arg Ile Glu Met Glu Ser Thr Ser Thr Leu Thr Pro Thr Pro  
 50 55 60  
 Arg Glu Thr Ser Thr Ser Gln Glu Ile His Ser Ala Thr Lys Pro Ser  
 65 70 75 80  
 Thr Val Pro Tyr Lys Ala Leu Thr Ser Ala Thr Ile Glu Asp Ser Met  
 85 90 95  
 Thr Gln Val Met Ser Ser Ser Arg Gly Pro Ser Pro Asp Gln Ser Thr  
 100 105 110  
 Met Ser Gln Asp Ile Ser Thr Glu Val Ile Thr Arg Leu Ser Thr Ser  
 115 120 125  
 Pro Ile Lys Thr Glu Ser Thr Glu Met Thr Ile Thr Thr Gln Thr Gly  
 130 135 140  
 Ser Pro Gly Ala Thr Ser Arg Gly Thr Leu Thr Leu Asp Thr Ser Thr  
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 Thr Phe Met Ser Gly Thr His Ser Thr Ala Ser Gln Arg Phe Ser His  
 165 170 175  
 Ser Gln Met Thr Ala Leu Met Ser Arg Thr Pro Gly Asp Val Pro Trp  
 180 185 190  
 Leu Thr His Pro Ser Gly Glu Glu Pro Ala Ser Ala Ser Phe Ser Leu  
 195 200 205  
 Ala Ser Pro Val Leu Thr Ser Phe Phe Ser Phe Phe Ala His Ser Gln  
 210 215 220  
 Lys Pro Pro Pro Phe Leu Val Pro Gly Gln Thr Phe Ser Leu Gly Leu  
 225 230 235 240  
 Gly Lys Pro Lys Met Trp Gly Gln Pro Arg Thr Glu Thr Phe Pro Pro  
 245 250 255  
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<210> 2999  
 <211> 550  
 <212> DNA  
 <213> Homo sapiens

<400> 2999  
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 240  
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 300  
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 420  
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<210> 3000

<211> 167

<212> PRT

<213> Homo sapiens

<400> 3000

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Val	Gln	Leu	Val	Val	Leu	Ile	Ser	Ala	Gln	Leu	Trp	Leu	Ser	Pro	Gly
			20					25					30		
Ala	Phe	Met	Gly	Leu	Arg	Gly	Glu	Lys	Val	His	Ala	Asn	Ser	Ser	Met
		35					40					45			
Gly	Gly	His	Gly	Trp	Ala	Gln	Gly	Lys	Ala	Pro	Gln	Val	Ala	Leu	Ala
	50					55				60					
Val	Ser	Gly	Thr	Gly	Asp	Pro	Ser	Pro	Arg	Leu	Gln	Ala	Phe	Pro	Gly
65					70					75				80	
Leu	Glu	Val	Gly	Leu	His	Cys	Gly	Pro	Ala	Ser	Phe	His	Pro	Gly	Ala
			85					90					95		
Cys	Leu	Pro	Pro	Ala	Ala	Val	His	Gly	Asp	Gln	Ala	Val	His	Val	Lys
			100					105					110		
Gly	Cys	Leu	Gln	Ala	Ser	Thr	Gly	Leu	Ser	Ser	Val	His	Pro	Ser	Ala
			115				120					125			
Ser	Phe	Pro	Cys	Leu	Ser	Val	Pro	Lys	Ala	Trp	Arg	Gly	Pro	Lys	Trp
	130					135					140				
Gln	Gly	Gly	Trp	His	Val	Ser	Thr	Thr	Pro	Ser	Met	Cys	Thr	Leu	Ser
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Trp	Ala	Val	Thr	Ala	Pro	Gly									
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<210> 3001

<211> 1092

<212> DNA

<213> Homo sapiens

<400> 3001



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 180  
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 240  
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 300  
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<210> 3002

<211> 115

<212> PRT

<213> Homo sapiens

<400> 3002

Met	Ala	Pro	Phe	Arg	Ile	Pro	Gln	Asp	Val	Ile	His	Asn	Ser	Ser	Ala
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Trp	Leu	Ser	Leu	Lys	Gly	His	Cys	Ser	Val	Ser	Ala	Leu	Arg	Cys	Leu
		20					25					30			
Glu	Val	Gln	Arg	Leu	Ser	Pro	Tyr	Val	Cys	Leu	Gly	Glu	Ser	Gln	Lys
		35				40					45				
Val	Glu	Ser	Gln	Pro	Cys	Ser	Ala	His	Gln	Cys	Phe	Phe	Tyr	Asn	Pro
	50				55				60						
Asp	Ile	Ala	Lys	Thr	Ala	Val	Pro	Thr	Glu	Ala	Ser	Ser	Pro	Ala	Gln

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<210> 3003
<211> 474
<212> DNA
<213> Homo sapiens
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<210> 3004
<211> 155
<212> PRT
<213> Homo sapiens
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2234

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 145 150 155

<210> 3005

<211> 799

<212> DNA

<213> Homo sapiens

<400> 3005

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 180  
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<210> 3006

<211> 266

<212> PRT

<213> Homo sapiens

<400> 3006

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 20 25 30  
 Asp Gln Tyr Val Asn Lys Arg Tyr Pro Gly Leu Val Lys Ile Val Arg  
 35 40 45  
 Asn Ser Arg Arg Glu Gly Leu Ile Arg Ala Arg Leu Gln Gly Trp Lys  
 50 55 60  
 Ala Ala Thr Ala Pro Val Val Gly Phe Phe Asp Ala His Val Glu Phe

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65          70          75          80
Asn Thr Gly Trp Ala Glu Pro Ala Leu Ser Arg Ile Arg Glu Asp Arg
          85          90          95
Arg Arg Ile Val Leu Pro Ala Ile Asp Asn Ile Lys Tyr Ser Thr Phe
          100          105          110
Glu Val Gln Gln Tyr Ala Asn Ala Ala His Gly Tyr Asn Trp Gly Leu
          115          120          125
Trp Cys Met Tyr Ile Ile Pro Pro Gln Asp Trp Leu Asp Arg Gly Asp
          130          135          140
Glu Ser Ala Pro Ile Arg Thr Pro Ala Met Ile Gly Cys Ser Phe Val
145          150          155          160
Val Asp Arg Glu Tyr Phe Gly Asp Ile Gly Leu Leu Asp Pro Gly Met
          165          170          175
Glu Val Tyr Gly Gly Glu Asn Val Glu Leu Gly Met Arg Val Trp Gln
          180          185          190
Cys Gly Gly Ser Met Glu Val Leu Pro Cys Ser Arg Val Ala His Ile
          195          200          205
Glu Arg Thr Arg Lys Pro Tyr Asn Asn Asp Ile Asp Tyr Tyr Ala Lys
          210          215          220
Arg Asn Ala Leu Arg Thr Ala Glu Val Trp Met Asp Asp Phe Lys Ser
225          230          235          240
His Val Tyr Met Ala Trp Asn Ile Pro Met Ser Asn Pro Gly Val Asp
          245          250          255
Phe Gly Asp Val Ser Glu Arg Leu Ala Leu
          260          265

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&lt;210&gt; 3007

&lt;211&gt; 536

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3007

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536

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&lt;210&gt; 3008

&lt;211&gt; 163

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3008

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Met Thr Leu Leu His Tyr Thr Cys Lys Ser Gly Ala His Gly Ile Gly
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Asp Val Glu Thr Ala Val Lys Phe Ala Thr Gln Leu Ile Asp Leu Gly
      20           25           30
Ala Asp Ile Ser Leu Arg Ser Arg Trp Thr Asn Met Asn Ala Leu His
      35           40           45
Tyr Ala Ala Tyr Phe Asp Val Pro Glu Leu Ile Arg Val Ile Leu Lys
      50           55           60
Thr Ser Lys Pro Lys Asp Val Asp Ala Pro Cys Ser Asp Phe Asn Phe
65           70           75           80
Gly Thr Ala Leu His Ile Ala Ala Tyr Asn Leu Cys Ala Gly Ala Val
      85           90           95
Lys Cys Leu Leu Glu Gln Gly Ala Asn Pro Ala Phe Arg Asn Asp Lys
      100          105          110
Gly Gln Ile Pro Ala Asp Val Val Pro Asp Pro Val Asp Met Pro Leu
      115          120          125
Glu Met Ala Asp Ala Ala Ala Thr Ala Lys Glu Ile Lys Gln Met Leu
      130          135          140
Leu Asp Ala Val Pro Leu Ser Cys Asn Ile Ser Lys Ala Met Leu Pro
145          150          155          160
Pro Ser Arg

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&lt;210&gt; 3009

&lt;211&gt; 1335

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3009

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420
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660

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<211> 310

<212> PRT

<213> Homo sapiens

<400> 3010

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&lt;210&gt; 3011

&lt;211&gt; 3253

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3011

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&lt;210&gt; 3012

&lt;211&gt; 870

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3012

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 Ser Val Tyr Leu Val Pro Thr Pro Ser Lys Ala Gln Gln Gly Leu Tyr  
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 Ala Thr Asp Leu Tyr Gln Val Pro Pro Gly Pro Gly Gly Pro Ala Gln

2242

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Glu Glu Phe Glu Lys Thr Gln Lys Glu Leu Leu Glu Lys Gly Asn Ile
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      740              745              750
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      820              825              830
Ala Ala Leu Gln Tyr Pro Ser Pro Ser Ala Ala Gln Asp Met Val Glu
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Gly Gln Leu Ala Ala Ala
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&lt;211&gt; 248

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3013

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 Val Pro Gly Gly Met Val His Pro Ile Phe Leu Glu Pro Val Thr Val

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&lt;210&gt; 3017

&lt;211&gt; 4796

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3017

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cttcataaaa cagcaaatca atgttttatg taaaatatta aagcattaat ataaatatgt  
4440

gagaataaaaa acaatctaaa tccagaaaat ggcagtccta aatgttcatg agacagattg  
 4500  
 tattaattta accaggacta tgtagaagta gaaagaaaag aaaaagaaaa tcttttttaa  
 4560  
 accagaataa acattaaaaa ctattgcaga aaatagtgga ttttgattc caaacatttt  
 4620  
 cgacagtgtg atggaaattt ttctgtaatt ttcttaccat cgggtatttt ttaaagtatt  
 4680  
 cattgagttt accaaaagtt actgtagctt aaaagggttt gtgagcacta actattggca  
 4740  
 gaaactgcat ttgcaaataa aaataaatgt ttgcctttta aaaaaaaaaa aaaaaa  
 4796

<210> 3018

<211> 104

<212> PRT

<213> Homo sapiens

<400> 3018

Cys	His	Leu	Glu	Gln	Val	His	Leu	Lys	Pro	Ile	Pro	Lys	Asp	Thr	Pro
1				5					10					15	
Thr	Thr	Pro	Thr	Pro	Thr	Leu	Ala	Cys	Pro	Ser	Pro	Gln	Cys	Ala	Phe
		20						25					30		
Gln	Arg	Trp	Ile	Thr	Ile	Gln	His	Arg	Trp	Ser	Ser	Ala	Leu	His	Cys
	35					40						45			
Gln	Gly	Leu	Thr	Pro	Thr	Pro	Gly	Ala	Leu	Pro	Asn	Tyr	Leu	Lys	Val
	50					55					60				
Lys	Ala	Asn	Arg	Ala	Ile	Pro	Gln	Ala	Val	Thr	Ser	Thr	Arg	Leu	Gly
65					70					75				80	
Thr	Thr	Lys	Pro	Pro	Cys	Thr	Ile	Thr	Pro	Pro	Cys	Arg	Ala	Val	Arg
			85						90					95	
Ser	Thr	Ser	Pro	Arg	Leu	Pro	Thr								
															100

<210> 3019

<211> 882

<212> DNA

<213> Homo sapiens

<400> 3019

ggcctagcca aaaggggcgg gcgagcacgg cccgcggcgg gcgttcgctg gagctggtgg  
 60  
 accgggcggc tgaccgaggg gcggacgcgc ggcggggcag accgctgggg actgcggggc  
 120  
 gcgctgtgtc cgtcgccatg acagatcaga cctattgtga ccgctggtg caggacacgc  
 180  
 ctttcctgac aggccatggg cgcttgagtg agcagcaggt ggacaggatc atcctccagc  
 240  
 tgaaccgtta ctaccacag atccttacca acaaggaggc ggaaaagggt ctgaggagtt  
 300  
 ccggaacccc aaggcatcct tgcgtgtgcg gctctgtgac ctctgagcc acctgcagcg  
 360  
 gagctgtgag cgggactgcc aggagttcta ccgagccctg tatatccatg cccagcccct  
 420



gcacagccgc ctgcccagcc gccacgctct gcagaactca gattgcacag agctagactc  
 480  
 gggcagccag agcggcgagc tgagtaacag gggacccatg agcttcctgg ctggcctggg  
 540  
 ccttgctgtg ggactggccc tgctcctgta ctgctatccg ccagacccca agggcctggc  
 600  
 agggacccgg cgcgtcctcg gtttctcgcc tgtcatcatc gacagacatg tcagccgcta  
 660  
 cctgctggcc ttcttggcag atgacctagg ggggctctga cagaccctgg acccagggcc  
 720  
 tcacctgcca ctcaacaaa gaggcctcga gccggcccgc caaggggact gctgcttctt  
 780  
 tttctaaatg catatttttc attatttata atttgtgtaa aaaacacacc ttcaccttac  
 840  
 aagggtgctga ccatattaaa tggtcaggtt ctctcaaaaa aa  
 882

&lt;210&gt; 3020

&lt;211&gt; 58

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3020

Gln	Gly	Thr	His	Glu	Leu	Pro	Gly	Trp	Pro	Gly	Pro	Cys	Cys	Gly	Thr
1				5				10					15		
Gly	Pro	Ala	Pro	Val	Leu	Leu	Ser	Ala	Arg	Pro	Gln	Gly	Pro	Ala	Arg
			20				25				30				
Asp	Pro	Ala	Arg	Pro	Arg	Phe	Leu	Ala	Cys	His	His	Arg	Gln	Thr	Cys
		35				40					45				
Gln	Pro	Leu	Pro	Ala	Gly	Leu	Pro	Gly	Arg						
		50				55									

&lt;210&gt; 3021

&lt;211&gt; 1008

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3021

ntgtacatac agtacggaat gacttcagat tctgaaaaaa ggcaaactctg accaattgag  
 60  
 gcagaaagca ggtagtggt tccccaggtc tggaactggg gtgggttact gatagcaaat  
 120  
 gggcatgtgg gtgccttggg gtagggtaaa ggttccatct tgatcgcggt ggtgtttccc  
 180  
 aagtgtatac actcacaaa actatactta gaactcaaaa ctgcctcaat atatacttaa  
 240  
 aatggatgca gttggttatg tataaattat acctcaataa agttgattaa aaacatcaat  
 300  
 tcctcagaaa attcttttct gaccactccc ctctcagacg aggtcggggc tcctgggtatg  
 360  
 catacccata ccactacaa cctgtattta ttttttttga aacatgggtct ctttctgtcg  
 420  
 tccaggctgg agtgacgtgg cgcaatcatg gatcactgca gccttgacct tcctgggtca  
 480

agtgatcctc ccggctcacc ccagtagct ggaaccacag gcgcgcttcc acaccggaaa  
 540  
 gcccatcttc tagaggcgga aaccgaagcg ccagtgga aaggcgaccc gccgggagtg  
 600  
 cggggtgctc aacgcgtgc cacctggggc ccaacgcgtt gacctcgcg tcaggttgct  
 660  
 tccgcggact acggttctgg ctcgtagct ctggaaggga gcaccgggag ggaatggtgg  
 720  
 caactcccaa ggaggggacc cagggatccg agaaaggaag acttggggta ggtggggttg  
 780  
 gattttgact ggagagaaga aagggtcagg agtgcagggc ggttacctgg ggagctgcgt  
 840  
 ggactcgcg agacgggaag caggcgctg ctggcggtga cctggggccg gagaggaacg  
 900  
 ctgggtcccc tcttgggag ttgccaccat tccctcccgg tgctcccttc cagagctagc  
 960  
 gagccagaac cgtagtccgc ggaacaacct gaccgcgagt caacgcgt  
 1008

<210> 3022

<211> 94

<212> PRT

<213> Homo sapiens

<400> 3022

Met	His	Thr	His	Thr	His	Tyr	Asn	Leu	Tyr	Leu	Phe	Phe	Leu	Lys	His
1				5					10					15	
Gly	Leu	Phe	Leu	Ser	Ser	Arg	Leu	Glu	Cys	Ser	Gly	Ala	Ile	Met	Asp
			20					25					30		
His	Cys	Ser	Leu	Asp	Leu	Pro	Gly	Ser	Ser	Asp	Pro	Pro	Gly	Ser	Pro
		35					40					45			
Pro	Val	Ala	Gly	Thr	Thr	Gly	Ala	Leu	Pro	His	Arg	Lys	Ala	His	Phe
	50					55					60				
Leu	Glu	Ala	Glu	Thr	Glu	Ala	Pro	Ser	Gly	Lys	Gly	Asp	Pro	Pro	Gly
65					70					75				80	
Met	Arg	Gly	Ala	Gln	Arg	Ala	Ala	Thr	Trp	Gly	Pro	Thr	Arg		
				85					90						

<210> 3023

<211> 1834

<212> DNA

<213> Homo sapiens

<400> 3023

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 60  
 aacttctatt ttggtgttca aagatcgga taaatatgta agtggagaat tcaggttaagt  
 120  
 tcagattttt cctccagtt ggtttaattt ctatttccta aaacattaaa ataataatgg  
 180  
 aatgattgaa ataataaaca tttttcttat tcaagatttc gtcattggcta ttgtaaagga  
 240  
 aaccctagga aaatggtgaa aacttgggca gaaaaagaaa tgaggaactt aatcaggcta  
 300

aacacagcag agataccatg tccagaacca ataatgctaa gaagtcatgt tcttgtcatg  
360  
agtttcatcg gtaaagatga catgcctgca ccactcttga aaaatgtcca gttatcagaa  
420  
tccaaggctc gggagtgtga cctgcaggtc attcagtaca tgagaagaat gtatcaggat  
480  
gccagacttg tccatgcaga tctcagtga tttaacatgc tgtaccacgg tggaggcgtg  
540  
tatatcattg acgtgtctca gtccgtggag caccgaccacc cacatgcctt ggagtctctg  
600  
agaaaggatt gcgccaacgt caatgatttc tttatgaggg acagtgttgc tgtcatgact  
660  
gtgcggggagc tctttgaatt tgtcacagat ccatccatta cacatgagaa catggatgct  
720  
tatctctcaa aggccatgga aatagcatct caaaggacca aggaagaacg gtctagccaa  
780  
gatcatgtgg atgaagaggt gtttaagcga gcatatattc ctagaacctt gaatgaagt  
840  
aaaaattatg agagggatat ggacataatt atgaaattga aggaagagga catggccatg  
900  
aatgcccac aagataatat tctaccagac tgttacagga ttgaagaaag atttgcagg  
960  
agttcagaag gtccctgcac tctagaaaat caagtggagg aaaggacttg ttctgattca  
1020  
gaagatattg gaagctctga gtgctctgac acagactctg aagagcaggg agaccatgcc  
1080  
cgccccaaga aacacaccac ggaccctgac attgataaaa aagaaagaaa aaagatggtc  
1140  
aaggaagccc agagagagaa aagaaaaaac aaaattccta aacatgtgaa aaaaagaaag  
1200  
gagaagacag ccaagacgaa aaaaggcaaa tagaatgaga accatattat gtacagtcat  
1260  
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1320  
ttttaaccag attgtcatcg tggcactgtc tgtgaagacg gattcaaatg ttttcatgta  
1380  
actatgtaaa aagctctaag ctctagagtc tagatccagt cactgactct gtctgggtgt  
1440  
gacagaggat ttatttaagc tattatttta ataaagaact ttgtacattt ttatttttat  
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1560  
tctgtaactc ttacatgagt gtccagaggc actcatggga aaattgggtt tgctttcttt  
1620  
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1680  
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1740  
ggcgatcatt tgtaatgctc ttacacttcg tctttaatgt tcttttttga gttaggacct  
1800  
ctcagttcat aaagtttttt acaattcaaa aaaa  
1834

&lt;210&gt; 3024

&lt;211&gt; 347

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3024

```

Asn Asn Lys His Phe Ser Tyr Ser Arg Phe Arg His Gly Tyr Cys Lys
 1          5          10          15
Gly Asn Pro Arg Lys Met Val Lys Thr Trp Ala Glu Lys Glu Met Arg
 20          25          30
Asn Leu Ile Arg Leu Asn Thr Ala Glu Ile Pro Cys Pro Glu Pro Ile
 35          40          45
Met Leu Arg Ser His Val Leu Val Met Ser Phe Ile Gly Lys Asp Asp
 50          55          60
Met Pro Ala Pro Leu Leu Lys Asn Val Gln Leu Ser Glu Ser Lys Ala
 65          70          75          80
Arg Glu Leu Tyr Leu Gln Val Ile Gln Tyr Met Arg Arg Met Tyr Gln
 85          90          95
Asp Ala Arg Leu Val His Ala Asp Leu Ser Glu Phe Asn Met Leu Tyr
100          105          110
His Gly Gly Gly Val Tyr Ile Ile Asp Val Ser Gln Ser Val Glu His
115          120          125
Asp His Pro His Ala Leu Glu Phe Leu Arg Lys Asp Cys Ala Asn Val
130          135          140
Asn Asp Phe Phe Met Arg His Ser Val Ala Val Met Thr Val Arg Glu
145          150          155          160
Leu Phe Glu Phe Val Thr Asp Pro Ser Ile Thr His Glu Asn Met Asp
165          170          175
Ala Tyr Leu Ser Lys Ala Met Glu Ile Ala Ser Gln Arg Thr Lys Glu
180          185          190
Glu Arg Ser Ser Gln Asp His Val Asp Glu Glu Val Phe Lys Arg Ala
195          200          205
Tyr Ile Pro Arg Thr Leu Asn Glu Val Lys Asn Tyr Glu Arg Asp Met
210          215          220
Asp Ile Ile Met Lys Leu Lys Glu Glu Asp Met Ala Met Asn Ala Gln
225          230          235          240
Gln Asp Asn Ile Leu Pro Asp Cys Tyr Arg Ile Glu Glu Arg Phe Val
245          250          255
Arg Ser Ser Glu Gly Pro Cys Thr Leu Glu Asn Gln Val Glu Glu Arg
260          265          270
Thr Cys Ser Asp Ser Glu Asp Ile Gly Ser Ser Glu Cys Ser Asp Thr
275          280          285
Asp Ser Glu Glu Gln Gly Asp His Ala Arg Pro Lys Lys His Thr Thr
290          295          300
Asp Pro Asp Ile Asp Lys Lys Glu Arg Lys Lys Met Val Lys Glu Ala
305          310          315          320
Gln Arg Glu Lys Arg Lys Asn Lys Ile Pro Lys His Val Lys Lys Arg
325          330          335
Lys Glu Lys Thr Ala Lys Thr Lys Lys Gly Lys
340          345

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&lt;210&gt; 3025

&lt;211&gt; 1370

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3025

nnacgcgtgc ccagacagga tggctttttc gggaagataa aacacattag atggatcact  
60  
tcaagagaag ataaaaattg aaactgctaa tcatctagta ctactgctaa gccgctccaa  
120  
agcttctgaa gcatctaggt gatcttctta aatctttgac aggaaagagt aggaaacttt  
180  
ttggcagact tttacctggt gaatggactt gttttagaat caaggaaaag aagagaacat  
240  
ctcagtgaag aggatattct tcgaaataag gccatcatgg agagtttgag taaagggtgga  
300  
aacataatgg aacagaattt tgagccgatt cgaagacagt ctcttacacc tcctcctcag  
360  
aacactatta catgggaaga atatatatct gctgaaaatg gaaaagctcc tcatctgggt  
420  
agagaattgg tgtgcaaaga gagtaagaaa acgttttaaag ctacgatagc catgagccag  
480  
gaatttccct tagggataga gttattattg aatgttttag aagtagtagc tcccttcaag  
540  
cactttaaca agcttagaga atttgttcag atgaagcttc ctccaggctt tcctgtaaaa  
600  
ttagatatac ctgtgtttcc cacaatcaca gccactgtga cttttcagga gtttcgatac  
660  
gatgaatttg atggctccat ctttactata cctgatgact acaaggaaga cccaagccgt  
720  
tttctgatc ttttaactgac gtggaaaagg atgccgtcta accaaggaaa gaaaatacag  
780  
agaccctaga agtggatcca aatagaaggg acaaatgctt tcagtgaaga aaagggaatt  
840  
acacattgaa tcgacacatc agtaatacga tacagtgaag tgggcctcta ataagaattt  
900  
cagcgagttt tctgatgtgc cattttttgt ctttttaaaa atatacatat tataaatgta  
960  
atagtttgac acattaatga ccctaagacc tgcgtatgtg aagcagctat gagtgtgtg  
1020  
atttgttttt aaaaattttt acacttcttg ttgaaatata tatgcatata aatatatcta  
1080  
tatctatata tatatctaaa acactcctgg accattaacg taaattaaat gtcttaagag  
1140  
atatggagcc cttttaaact tgtcatcttt atgcaagggtg acatttataa atattccttc  
1200  
gagctttgtt ttcataaaat gtaactatg taacattatg tatagttcag taatttgaat  
1260  
gtttgttcaa tataatgaac tagaaggaat gcaattttct gtagatgaat gaaccaaatg  
1320  
gtaaccatta aacaattgca tttaaaaaaa aaaaaaaaaa aaaaaaaaaa  
1370

&lt;210&gt; 3026

&lt;211&gt; 152

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3026

Met Glu Ser Leu Ser Lys Gly Gly Asn Ile Met Glu Gln Asn Phe Glu  
 1 5 10 15  
 Pro Ile Arg Arg Gln Ser Leu Thr Pro Pro Pro Gln Asn Thr Ile Thr  
 20 25 30  
 Trp Glu Glu Tyr Ile Ser Ala Glu Asn Gly Lys Ala Pro His Leu Gly  
 35 40 45  
 Arg Glu Leu Val Cys Lys Glu Ser Lys Lys Thr Phe Lys Ala Thr Ile  
 50 55 60  
 Ala Met Ser Gln Glu Phe Pro Leu Gly Ile Glu Leu Leu Leu Asn Val  
 65 70 75 80  
 Leu Glu Val Val Ala Pro Phe Lys His Phe Asn Lys Leu Arg Glu Phe  
 85 90 95  
 Val Gln Met Lys Leu Pro Pro Gly Phe Pro Val Lys Leu Asp Ile Pro  
 100 105 110  
 Val Phe Pro Thr Ile Thr Ala Thr Val Thr Phe Gln Glu Phe Arg Tyr  
 115 120 125  
 Asp Glu Phe Asp Gly Ser Ile Phe Thr Ile Pro Asp Asp Tyr Lys Glu  
 130 135 140  
 Asp Pro Ser Arg Phe Pro Asp Leu  
 145 150

&lt;210&gt; 3027

&lt;211&gt; 1154

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3027

nccgttttcc cgctgcacgt ggtggccact gttggcttct gaatggtttg caaggcggat  
 60  
 atccacgcca aggccttttg atcggccgtg ggtacatccg tctgagccgt tcctttccat  
 120  
 cgcagacggc ggctccgcg gcgctctcca gtcattggact accggcggct tctcatgagc  
 180  
 cgggtggtcc ccgggcaatt cgacgacgcg gactcctctg acagtgaaa cagagacttg  
 240  
 aagacagtca aagagaagga tgacattctg tttgaagacc ttcaagacaa tgtgaatgag  
 300  
 aatggtgaag gtgaaataga agatgaggag gaggagggtt atgatgatga tgatgatgac  
 360  
 tgggactggg atgaaggagt tggaaaactc gccaaagggtt atgtctggaa tggaggaagc  
 420  
 aaccacagg caaatcgaca gacctccgac agcagttcag ccaaaatgtc tactccagca  
 480  
 gacaaggctc tacggaaatt tgagaataaa attaatctag ataagctaaa tgttactgat  
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 660  
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 720  
 aaagaagcta atgtatacca tgctagcaca gcaaatggag agagcagagc aatcaaaatt  
 780

tataaaactt ctattttggt gttcaaagat cgggataaat atgtaagtgg agaattcaga  
 840  
 tttcgtcatg gctattgtaa aggaaaccct aggaaaatgg tgaaaacttg ggcagaaaaa  
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 aggectgcac cactcttgaa aaatgtccag ttatcagaat ccaaggctcg ggagttgtac  
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 1140  
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 1154

<210> 3028

<211> 331

<212> PRT

<213> Homo sapiens

<400> 3028

Met	Asp	Tyr	Arg	Arg	Leu	Leu	Met	Ser	Arg	Val	Val	Pro	Gly	Gln	Phe
1				5					10					15	
Asp	Asp	Ala	Asp	Ser	Ser	Asp	Ser	Glu	Asn	Arg	Asp	Leu	Lys	Thr	Val
		20						25					30		
Lys	Glu	Lys	Asp	Asp	Ile	Leu	Phe	Glu	Asp	Leu	Gln	Asp	Asn	Val	Asn
	35					40					45				
Glu	Asn	Gly	Glu	Gly	Glu	Ile	Glu	Asp	Glu	Glu	Glu	Glu	Gly	Tyr	Asp
	50					55					60				
Asp	Asp	Asp	Asp	Asp	Trp	Asp	Trp	Asp	Glu	Gly	Val	Gly	Lys	Leu	Ala
65					70				75					80	
Lys	Gly	Tyr	Val	Trp	Asn	Gly	Gly	Ser	Asn	Pro	Gln	Ala	Asn	Arg	Gln
			85					90					95		
Thr	Ser	Asp	Ser	Ser	Ser	Ala	Lys	Met	Ser	Thr	Pro	Ala	Asp	Lys	Val
		100						105					110		
Leu	Arg	Lys	Phe	Glu	Asn	Lys	Ile	Asn	Leu	Asp	Lys	Leu	Asn	Val	Thr
	115					120					125				
Asp	Ser	Val	Ile	Asn	Lys	Val	Thr	Glu	Lys	Ser	Arg	Gln	Lys	Glu	Ala
	130					135					140				
Asp	Met	Tyr	Arg	Ile	Lys	Asp	Lys	Ala	Asp	Arg	Ala	Thr	Val	Glu	Gln
145					150				155					160	
Val	Leu	Asp	Pro	Arg	Thr	Arg	Met	Ile	Leu	Phe	Lys	Met	Leu	Thr	Arg
			165					170					175		
Gly	Ile	Ile	Thr	Glu	Ile	Asn	Gly	Cys	Ile	Ser	Thr	Gly	Lys	Glu	Ala
		180					185					190			
Asn	Val	Tyr	His	Ala	Ser	Thr	Ala	Asn	Gly	Glu	Ser	Arg	Ala	Ile	Lys
	195					200					205				
Ile	Tyr	Lys	Thr	Ser	Ile	Leu	Val	Phe	Lys	Asp	Arg	Asp	Lys	Tyr	Val
	210					215					220				
Ser	Gly	Glu	Phe	Arg	Phe	Arg	His	Gly	Tyr	Cys	Lys	Gly	Asn	Pro	Arg
225					230				235					240	
Lys	Met	Val	Lys	Thr	Trp	Ala	Glu	Lys	Glu	Met	Arg	Asn	Leu	Ile	Arg
			245					250					255		
Leu	Asn	Thr	Ala	Glu	Ile	Pro	Cys	Pro	Glu	Pro	Ile	Met	Leu	Arg	Ser

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                260                265                270
His Val Leu Val Met Ser Phe Ile Gly Lys Asp Asp Ile Ser Phe His
      275                280                285
Ser Arg Pro Ala Pro Leu Leu Lys Asn Val Gln Leu Ser Glu Ser Lys
      290                295                300
Ala Arg Glu Leu Tyr Leu Gln Val Ile Gln Tyr Met Arg Arg Met Tyr
305                310                315                320
Gln Asp Ala Arg Leu Val His Ala Asp Arg Arg
                325                330

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&lt;210&gt; 3029

&lt;211&gt; 344

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3029

```

acgcgtgatg cacggaaggg ccttcggttt ttgcattttc cttatctgct gaccttacag
60
ctgaaaagat tcgattttga ttatacaacc atgcatagga ttaaactgaa tgatcgaatg
120
acatttcccg aggaactaga tatgagtact tttattgatg ttgaagatga aaaatctcct
180
cagactgaaa gttgcactga caggggagca gaaaatgaag gtagttgtca cagtgatcag
240
atgagcaacg atttctccaa tgatgatggt gttgatgaag gaatctgttt tgaaaccaat
300
agtggaactg aaaagatctc aaaatctgga cctgaaaaga attc
344

```

&lt;210&gt; 3030

&lt;211&gt; 114

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3030

```

Thr Arg Asp Ala Arg Lys Gly Leu Arg Phe Leu His Phe Pro Tyr Leu
1      5      10      15
Leu Thr Leu Gln Leu Lys Arg Phe Asp Phe Asp Tyr Thr Thr Met His
      20      25      30
Arg Ile Lys Leu Asn Asp Arg Met Thr Phe Pro Glu Glu Leu Asp Met
      35      40      45
Ser Thr Phe Ile Asp Val Glu Asp Glu Lys Ser Pro Gln Thr Glu Ser
      50      55      60
Cys Thr Asp Arg Gly Ala Glu Asn Glu Gly Ser Cys His Ser Asp Gln
65      70      75      80
Met Ser Asn Asp Phe Ser Asn Asp Asp Gly Val Asp Glu Gly Ile Cys
      85      90      95
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Lys Asn

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&lt;210&gt; 3031

&lt;211&gt; 567



&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3031

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&lt;210&gt; 3032

&lt;211&gt; 189

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3032

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			20					25					30		
Thr	Pro	Arg	Met	Asn	Arg	Arg	Leu	Val	Gly	Pro	Asp	Val	Ile	Pro	Leu
		35					40					45			
Pro	His	Ile	Tyr	Gly	Ala	Arg	Ile	Lys	Gly	Val	Glu	Val	Phe	Cys	Pro
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Glu	Gln	Gly	Ser	Ser	Phe	Gln	Met	Ser	Glu	Gly	Ser	Glu	Ala	Ala	Val
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Ile	Pro	Leu	Asp	Leu	Gly	Cys	Thr	Gln	Val	Thr	Gln	Asp	Gly	Asp	Ile
		100					105					110			
Pro	Asn	Ile	Pro	Ala	Glu	Glu	Asn	Ala	Ser	Thr	Ser	Thr	Pro	Ser	Ser
		115					120					125			
Thr	Leu	Val	Arg	Pro	Ile	Arg	Ser	Arg	Arg	Ala	Leu	Pro	Pro	Leu	Arg
		130				135					140				
Thr	Arg	Ser	Lys	Ser	Asp	Pro	Val	Leu	His	Pro	Ser	Glu	Glu	Arg	Ala
145					150				155					160	
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180

185

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 <213> Homo sapiens

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878
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 <212> PRT  
 <213> Homo sapiens

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 Ser Ser Asn Ser Pro Asp Pro His Ser Gly Pro Ala Pro Ser Gln Thr  
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 Pro  
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 <212> DNA  
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&lt;210&gt; 3038

&lt;211&gt; 697

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3038

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 Leu Phe Ile Val Pro Arg Gln Arg Leu Asp Leu Leu Pro Phe Tyr Ala  
 35 40 45  
 Arg Leu Val Ala Thr Leu His Pro Cys Met Ser Asp Val Ala Glu Asp  
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 Leu Cys Ser Met Leu Arg Gly Asp Phe Arg Phe His Val Arg Lys Lys  
 65 70 75 80  
 Asp Gln Ile Asn Ile Glu Thr Lys Asn Lys Thr Val Arg Phe Ile Gly  
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2263

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Lys Gly Pro Pro Leu Gly Gly Gly Glu Gly Glu Ala Glu Ser Ala Asp		575
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Lys Ile Leu Asn Val Pro Met Ser Ser Gln Leu Ala Ala Asn His Trp		605
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Arg Arg Pro Arg Tyr Gln His Pro Lys Gly Ala Pro Asn Ala Asp Leu		670
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&lt;210&gt; 3039

&lt;211&gt; 1836

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3039

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<210> 3040

<211> 142

<212> PRT

<213> Homo sapiens

<400> 3040

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&lt;210&gt; 3041

&lt;211&gt; 1512

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3041

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 1320  
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 1380  
 ctggcaggat ccctgctggg cacacccac aaacccact ccctcaagaa gggccagggc  
 1440  
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<210> 3042

<211> 360

<212> PRT

<213> Homo sapiens

<400> 3042

Met	Lys	Ala	Leu	Ile	Leu	Val	Gly	Gly	Tyr	Gly	Thr	Arg	Leu	Arg	Pro
1				5					10					15	
Leu	Thr	Leu	Ser	Thr	Pro	Lys	Pro	Leu	Val	Asp	Phe	Cys	Asn	Lys	Pro
			20					25					30		
Ile	Leu	Leu	His	Gln	Val	Glu	Ala	Leu	Ala	Ala	Ala	Gly	Val	Asp	His
		35					40					45			
Val	Ile	Leu	Ala	Val	Ser	Tyr	Met	Ser	Gln	Val	Leu	Glu	Lys	Glu	Met
	50					55				60					
Lys	Ala	Gln	Glu	Gln	Arg	Leu	Gly	Ile	Arg	Ile	Ser	Met	Ser	His	Glu
65					70				75					80	
Glu	Glu	Pro	Leu	Gly	Thr	Ala	Gly	Pro	Leu	Ala	Leu	Ala	Arg	Asp	Leu
			85					90					95		
Leu	Ser	Glu	Thr	Ala	Asp	Pro	Phe	Phe	Val	Leu	Asn	Ser	Asp	Val	Ile
			100					105					110		
Cys	Asp	Phe	Pro	Phe	Gln	Ala	Met	Val	Gln	Phe	His	Arg	His	His	Gly
	115					120					125				
Gln	Glu	Gly	Ser	Ile	Leu	Val	Thr	Lys	Val	Glu	Glu	Pro	Ser	Lys	Tyr
	130					135				140					
Gly	Val	Val	Val	Cys	Glu	Ala	Asp	Thr	Gly	Arg	Ile	His	Arg	Phe	Val
145				150					155					160	
Glu	Lys	Pro	Gln	Val	Phe	Val	Ser	Asn	Lys	Ile	Asn	Ala	Gly	Met	Tyr
			165					170					175		
Ile	Leu	Ser	Pro	Ala	Val	Leu	Arg	Arg	Ile	Gln	Leu	Gln	Pro	Thr	Ser
	180							185					190		
Ile	Glu	Lys	Glu	Val	Phe	Pro	Ile	Met	Ala	Lys	Glu	Gly	Gln	Leu	Tyr
	195					200					205				
Ala	Met	Glu	Leu	Gln	Gly	Phe	Trp	Met	Asp	Ile	Gly	Gln	Pro	Lys	Asp
	210				215					220					
Phe	Leu	Thr	Gly	Met	Cys	Leu	Phe	Leu	Gln	Ser	Leu	Arg	Gln	Lys	Gln
225				230					235					240	
Pro	Glu	Arg	Leu	Cys	Ser	Gly	Pro	Gly	Ile	Val	Gly	Asn	Val	Leu	Val
			245					250					255		
Asp	Pro	Ser	Ala	Arg	Ile	Gly	Gln	Asn	Cys	Ser	Ile	Gly	Pro	Asn	Val
	260					265					270				
Ser	Leu	Gly	Pro	Gly	Val	Val	Val	Glu	Asp	Gly	Val	Cys	Ile	Arg	Arg

275                      280                      285  
 Cys Thr Val Leu Arg Asp Ala Arg Ile Arg Ser His Ser Trp Leu Glu  
 290                      295                      300  
 Ser Cys Ile Val Gly Trp Arg Cys Arg Val Gly Gln Trp Val Arg Met  
 305                      310                      315                      320  
 Glu Asn Val Thr Val Leu Gly Glu Asp Val Ile Val Asn Asp Glu Leu  
 325                      330                      335  
 Tyr Leu Asn Gly Ala Ser Val Leu Pro His Lys Ser Ile Gly Glu Ser  
 340                      345                      350  
 Val Pro Glu Pro Arg Ile Ile Met  
 355                      360

<210> 3043

<211> 394

<212> DNA

<213> Homo sapiens

<400> 3043

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 120  
 cttctctgac ctactccaa ctcacgtgtc tttagactt taagggactt cctgttttag  
 180  
 ggtcttcttg ctgggtgtca ttgaatgggc agtgattctc taactttaga ctgatgttcc  
 240  
 ccagcctttg ttgggggact cggaggcaga gtagacagtt acccttacct ctgggttggg  
 300  
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 360  
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 394

<210> 3044

<211> 115

<212> PRT

<213> Homo sapiens

<400> 3044

Met Lys Pro Leu Leu Thr Ser Trp Gly Tyr Gln Glu Tyr Asp Pro Pro  
 1                      5                      10                      15  
 Gln Pro Arg Gly Lys Gly Asn Cys Leu Leu Cys Leu Arg Val Pro Lys  
 20                      25                      30  
 Gln Arg Leu Gly Asn Ile Ser Leu Lys Leu Glu Asn His Cys Pro Phe  
 35                      40                      45  
 Asn Asp Thr Gln Pro Glu Asp Pro Lys Thr Gly Ser Pro Leu Lys Cys  
 50                      55                      60  
 Gln Arg His Val Ser Trp Ser Glu Val Arg Glu Ala Asp Ser Gly Leu  
 65                      70                      75                      80  
 Leu Leu Gly Gln Thr Pro Val Lys Arg Lys Arg Trp His His Glu Thr  
 85                      90                      95  
 Ser Ser Phe Ser Pro Cys Leu Trp Leu Lys Ala Arg Ala Ser Arg Ser  
 100                      105                      110  
 Lys Glu Ile

115

&lt;210&gt; 3045

&lt;211&gt; 605

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3045

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60
gaagaaattc tttgttacia gctgctatcc atgtccaggg ccaaacaatga atcctattgc
120
tcttgggagc cgctggcttg cttatgcaga aaacaagttg attcgatgtc atcagtcctc
180
tggtggagcc tgtggagaca acattcagtc ttatactgcc acagtcatta gtgctgctaa
240
aacattgaaa agtggcctga caatggtagg gaaagtgggtg actcagctga caggcacact
300
gccttcaggt gtgacagaag atgatgttgc catccacagt aattcacggc ggagtccttt
360
ggctccaggc atcatcacag ttattgacac cgaaaccgtg gagagggcca ggtgtttgtg
420
agtgaggatc ttgacagtga tggcattgtg gcccacttcc ctgcccata gaagccagt
480
tgctgcatgg cttttaatac aagtggaatg cttctagtca caacagacac ccttggccat
540
gactttcatg tcttccaaat tctgactcat ccttggtcct catctacgga gagacgaaa
600
cgcgt
605

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&lt;210&gt; 3046

&lt;211&gt; 72

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3046

```

His Arg Asn Arg Gly Glu Gly Gln Val Phe Val Ser Glu Asp Leu Asp
1      5      10      15
Ser Asp Gly Ile Val Ala His Phe Pro Ala His Glu Lys Pro Val Cys
20      25      30
Cys Met Ala Phe Asn Thr Ser Gly Met Leu Leu Val Thr Thr Asp Thr
35      40      45
Leu Gly His Asp Phe His Val Phe Gln Ile Leu Thr His Pro Trp Ser
50      55      60
Ser Ser Thr Glu Arg Arg Gln Arg
65      70

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&lt;210&gt; 3047

&lt;211&gt; 391

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3047

attttggagg agaggaagaa tgaaatgacc caagtcatta cccgaaccca agaggagaaa  
 60  
 ctggaacatg tccgtgctct gatcaaaaag tattctgac atttggagaa cgtctcaaag  
 120  
 ttggttgagt caggaattca gtttatggat gagccagaaa tggcagtgtt tctgcagaat  
 180  
 gccaaaaccc tgctaaaaaa aatctcggaa gcatcaaagg catttcagat ggagaaaata  
 240  
 gaacatggct atgagaacat gaaccacttc acagtcaacc tcaatagaga agaaaagata  
 300  
 atacgtgaaa ttgactttta cagagaagat gaagatgaag aagaagaaga aggcggagaa  
 360  
 ggagaaaaag aagagaagga gaagtgggag a  
 391

<210> 3048  
 <211> 122  
 <212> PRT  
 <213> Homo sapiens

<400> 3048  
 Met Thr Gln Val Ile Thr Arg Thr Gln Glu Glu Lys Leu Glu His Val  
 1 5 10 15  
 Arg Ala Leu Ile Lys Lys Tyr Ser Asp His Leu Glu Asn Val Ser Lys  
 20 25 30  
 Leu Val Glu Ser Gly Ile Gln Phe Met Asp Glu Pro Glu Met Ala Val  
 35 40 45  
 Phe Leu Gln Asn Ala Lys Thr Leu Leu Lys Lys Ile Ser Glu Ala Ser  
 50 55 60  
 Lys Ala Phe Gln Met Glu Lys Ile Glu His Gly Tyr Glu Asn Met Asn  
 65 70 75 80  
 His Phe Thr Val Asn Leu Asn Arg Glu Glu Lys Ile Ile Arg Glu Ile  
 85 90 95  
 Asp Phe Tyr Arg Glu Asp Glu Asp Glu Glu Glu Glu Gly Gly Glu  
 100 105 110  
 Gly Glu Lys Glu Glu Lys Glu Lys Trp Glu  
 115 120

<210> 3049  
 <211> 599  
 <212> DNA  
 <213> Homo sapiens

<400> 3049  
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 120  
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 180  
 tcgatattgt acctggaagg ctcggtcttt gtgtttgagg acatcttcag attgattgag  
 240  
 ttctactgtg tcagtagaga cttactgccc ttcacactgc ggctacccca ggccatcctt  
 300

gaggccagca gcttcacgga ccttgagacc atcgccaacc tgggtctggg tttctgggac  
 360  
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 420  
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 480  
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 599

<210> 3050

<211> 177

<212> PRT

<213> Homo sapiens

<400> 3050

Met	Phe	Leu	Val	Arg	Arg	Asp	Ser	Ser	Ser	Lys	Gln	Leu	Val	Leu	Cys
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Val	His	Phe	Pro	Ser	Leu	Asn	Glu	Ser	Ser	Ala	Glu	Val	Leu	Glu	Tyr
			20					25					30		
Thr	Ile	Lys	Glu	Glu	Lys	Ser	Ile	Leu	Tyr	Leu	Glu	Gly	Ser	Ala	Leu
		35				40					45				
Val	Phe	Glu	Asp	Ile	Phe	Arg	Leu	Ile	Ala	Phe	Tyr	Cys	Val	Ser	Arg
	50				55				60						
Asp	Leu	Leu	Pro	Phe	Thr	Leu	Arg	Leu	Pro	Gln	Ala	Ile	Leu	Glu	Ala
65				70					75					80	
Ser	Ser	Phe	Thr	Asp	Leu	Glu	Thr	Ile	Ala	Asn	Leu	Gly	Leu	Gly	Phe
			85					90					95		
Trp	Asp	Ser	Ser	Leu	Asn	Pro	Pro	Gln	Glu	Arg	Gly	Lys	Pro	Ala	Glu
			100					105					110		
Pro	Pro	Arg	Asp	Arg	Ala	Pro	Gly	Phe	Pro	Leu	Val	Ser	Ser	Leu	Arg
		115				120						125			
Pro	Thr	Ala	His	Asp	Ala	Asn	Cys	Ala	Cys	Glu	Ile	Glu	Leu	Ser	Val
	130					135				140					
Gly	Asn	Asp	Arg	Leu	Trp	Phe	Val	Asn	Pro	Ile	Phe	Ile	Glu	Asp	Cys
145				150					155					160	
Ser	Ser	Ala	Leu	Pro	Thr	Asp	Gln	Pro	Pro	Leu	Gly	Asn	Cys	Pro	Ser
			165					170					175		

Arg

<210> 3051

<211> 820

<212> DNA

<213> Homo sapiens

<400> 3051

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 120  
 tgaagactct caggttacca gcacaatat cccctacat tctcctcaca agggactccc  
 180

tcctcggcca ccgtcgcaca acaggectcc tcctccccag tccttgagg gactccgaca  
 240  
 gatgcactat caccgncaac gactatgaca agtcacccat caagcccaaa atgtggagt  
 300  
 agtcctcttt agatgaaccc tatgagaagg tcaagaagcg ctctctcac agccattcca  
 360  
 gcagccacaa gcgcttcccc agcacaggaa gctgtgcgga agccggcgga ggaagcaact  
 420  
 ccttgacaaa cagccccatc cgcggcctcc cgcactggaa ctcccagtc agcatgccgt  
 480  
 ccacgccaga cctgcgggtc cggagtcccc actacgtcca ttccacgagg tcggtggaca  
 540  
 tcagccccac ccgactgcac agcctcgcac tgcactttag gcaccggagc tccagcctgg  
 600  
 agtcccaggg caagctcctg ggctcgga aaacacaccg gagccccgac ttctacacc  
 660  
 cgcggactcg tagcagcaac ggctcagacc ccatggacga ctgctcgtcg tgcaccagcc  
 720  
 actcgagctc ggagcactac taccggcgcc agatgaacgc caactactcc acgctggccg  
 780  
 aggactcgcc gtccaaggcg cggctgcatg gatattcgac  
 820

<210> 3052

<211> 62

<212> PRT

<213> Homo sapiens

<400> 3052

Arg	Leu	Ser	Gly	Tyr	Gln	His	Asn	Ile	Pro	Pro	Thr	Phe	Ser	Ser	Gln
1			5					10					15		
Gly	Thr	Pro	Ser	Ser	Ala	Thr	Val	Ala	Gln	Gln	Ala	Ser	Ser	Ser	Pro
			20				25					30			
Val	Pro	Gly	Gly	Thr	Pro	Thr	Asp	Ala	Leu	Ser	Pro	Xaa	Thr	Thr	Met
		35				40				45					
Thr	Ser	His	Pro	Ser	Ser	Pro	Lys	Cys	Gly	Val	Ser	Pro	Leu		
	50					55				60					

<210> 3053

<211> 2625

<212> DNA

<213> Homo sapiens

<400> 3053

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 120  
 cagtttaaaa gatttagaga aactgtacca acttgggata caataagaga tgaagaagat  
 180  
 gttcttgatg agctcttgca gtatttggtt gttactagtc ctgaatgctt acagagaact  
 240  
 ggaatctcac ttaatatcc tgctccacaa cctgtgtgca tttctgaaaa acaagaaaat  
 300



gatgttatta atgctatcct taagcaacat acagaagaaa aagaatttgt tgagaagcac  
360  
tttaatgact taaacatgaa agctgtggaa caagatgaac caatacctca aaaacctcag  
420  
tcagcatttt attattgcag attgcttctt agtatattgg gaatgaattc ctgggacaaa  
480  
cggaggagct ttcattctct gaagaaaaat gaaaagctac ttagagaact taggaacttg  
540  
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600  
gaagacaaac actccattct caccaatata ggaggaagtc aagcatatga agattttgta  
660  
gctggtcttg gttgggaggt aaatcttaca aaccattgtg gttttatggg aggactacaa  
720  
aaaaacaaaa gactggatt gaccactcca tattttgcta cctctacagt agaggtaata  
780  
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840  
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900  
ggaattattc ccacagaatt tggatgatgc cttattgtaa tatatccaat gaaaaatcac  
960  
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1020  
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1800  
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1860  
acagcaaaag atgtacctgt taatacacag aatgtgtaca gattatttgt tatgacaata  
1920

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 1980  
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 2280  
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 2460  
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 2520  
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 2625

<210> 3054

<211> 417

<212> PRT

<213> Homo sapiens

<400> 3054

Ser	Gly	Xaa	Ser	Glu	His	Thr	Ser	Xaa	Met	Leu	Ser	Leu	Ser	His	Gln
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Glu	Lys	Pro	Glu	Glu	Pro	Pro	Thr	Ser	Asn	Glu	Cys	Leu	Glu	Asp	Ile
			20					25					30		
Thr	Val	Lys	Asp	Gly	Leu	Ser	Leu	Gln	Phe	Lys	Arg	Phe	Arg	Glu	Thr
		35					40					45			
Val	Pro	Thr	Trp	Asp	Thr	Ile	Arg	Asp	Glu	Glu	Asp	Val	Leu	Asp	Glu
		50				55					60				
Leu	Leu	Gln	Tyr	Leu	Gly	Val	Thr	Ser	Pro	Glu	Cys	Leu	Gln	Arg	Thr
65				70					75					80	
Gly	Ile	Ser	Leu	Asn	Ile	Pro	Ala	Pro	Gln	Pro	Val	Cys	Ile	Ser	Glu
			85					90					95		
Lys	Gln	Glu	Asn	Asp	Val	Ile	Asn	Ala	Ile	Leu	Lys	Gln	His	Thr	Glu
			100					105					110		
Glu	Lys	Glu	Phe	Val	Glu	Lys	His	Phe	Asn	Asp	Leu	Asn	Met	Lys	Ala
		115					120					125			
Val	Glu	Gln	Asp	Glu	Pro	Ile	Pro	Gln	Lys	Pro	Gln	Ser	Ala	Phe	Tyr
		130				135					140				
Tyr	Cys	Arg	Leu	Leu	Leu	Ser	Ile	Leu	Gly	Met	Asn	Ser	Trp	Asp	Lys
145				150					155					160	
Arg	Arg	Ser	Phe	His	Leu	Leu	Lys	Lys	Asn	Glu	Lys	Leu	Leu	Arg	Glu
			165					170						175	
Leu	Arg	Asn	Leu	Asp	Ser	Arg	Gln	Cys	Arg	Glu	Thr	His	Lys	Ile	Ala

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      180      185      190
Val Phe Tyr Val Ala Glu Gly Gln Glu Asp Lys His Ser Ile Leu Thr
      195      200      205
Asn Thr Gly Gly Ser Gln Ala Tyr Glu Asp Phe Val Ala Gly Leu Gly
      210      215      220
Trp Glu Val Asn Leu Thr Asn His Cys Gly Phe Met Gly Gly Leu Gln
      225      230      235      240
Lys Asn Lys Ser Thr Gly Leu Thr Thr Pro Tyr Phe Ala Thr Ser Thr
      245      250      255
Val Glu Val Ile Phe His Val Ser Thr Arg Met Pro Ser Asp Ser Asp
      260      265      270
Asp Ser Leu Thr Lys Lys Leu Arg His Leu Gly Asn Asp Glu Val His
      275      280      285
Ile Val Trp Ser Glu His Thr Arg Asp Tyr Arg Arg Gly Ile Ile Pro
      290      295      300
Thr Glu Phe Gly Asp Val Leu Ile Val Ile Tyr Pro Met Lys Asn His
      305      310      315      320
Met Phe Ser Ile Gln Ile Met Lys Lys Pro Glu Val Pro Phe Phe Gly
      325      330      335
Pro Leu Phe Asp Gly Ala Ile Val Asn Gly Lys Val Leu Pro Ile Met
      340      345      350
Val Arg Ala Thr Ala Ile Asn Ala Ser Arg Ala Leu Lys Ser Leu Ile
      355      360      365
Pro Leu Tyr Gln Asn Phe Tyr Glu Glu Arg Ala Arg Tyr Leu Gln Thr
      370      375      380
Ile Val Gln His His Leu Glu Pro Thr Thr Phe Glu Asp Phe Ala Ala
      385      390      395      400
Gln Val Phe Ser Pro Ala Pro Tyr His His Leu Pro Ser Asp Ala Asp
      405      410      415
His

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&lt;210&gt; 3055

&lt;211&gt; 905

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3055

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120
tcaactgtaac tacgtgtccg ggaaacatgc ctgcatattc tacgatgaga ataccaaaca
180
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240
tgacttctcg gagaagaccc cgccaacccc cccaagcagt attgttgcca aagtgcagag
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360
gatgagttcc caggcccagg ggccgcagcg gagaccctgc aattgcaaag ccagcagctc
420
gagcttgatt gggggcagtg gggccggtcg ggagggcaca gccttactgc accatggcag
480

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<210> 3056

<211> 195

<212> PRT

<213> Homo sapiens

<400> 3056

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			20					25					30		
Cys	Ile	Phe	Tyr	Asp	Glu	Asn	Thr	Lys	His	Tyr	Glu	Leu	Leu	Asn	Tyr
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Ser	Glu	Lys	Thr	Pro	Pro	Thr	Pro	Pro	Ser	Ser	Ile	Val	Ala	Lys	Val
65				70					75					80	
Gln	Ser	Val	Ile	Arg	Arg	Arg	Arg	His	Gln	Lys	Gln	Asp	Glu	Glu	Pro
			85					90					95		
Ser	Glu	Glu	Ala	Ala	Met	Met	Ser	Ser	Gln	Ala	Gln	Gly	Pro	Gln	Arg
			100				105					110			
Arg	Pro	Cys	Asn	Cys	Lys	Ala	Ser	Ser	Ser	Ser	Leu	Ile	Gly	Gly	Ser
	115					120						125			
Gly	Ala	Gly	Trp	Glu	Gly	Thr	Ala	Leu	Leu	His	His	Gly	Ser	Tyr	Ile
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Lys	Leu	Gly	Cys	Leu	Gln	Phe	Val	Phe	Ser	Ile	Thr	Glu	Phe	Ala	Thr
145				150					155					160	
Lys	Gln	Pro	Lys	Gly	Asp	Ala	Ser	Leu	Leu	Gln	Asp	Gly	Val	Leu	Ala
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Glu	Lys	Leu	Ser	Leu	Lys	Pro	His	Gln	Gly	Pro	Val	Leu	Arg	Ser	Asn
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<210> 3057

<211> 2169

<212> DNA

<213> Homo sapiens

&lt;400&gt; 3057

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 1980  
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 2040  
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<210> 3058

<211> 298

<212> PRT

<213> Homo sapiens

<400> 3058

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Ser	Val	Arg	Tyr	Cys	Ile	Lys	Ala	Thr	Leu	His	Arg	Pro	Trp	Val	Pro
			20					25					30		
Ala	Arg	Arg	Ala	Arg	Lys	Val	Phe	Thr	Val	Ile	Glu	Pro	Val	Asp	Ile
			35				40					45			
Asn	Thr	Pro	Ala	Leu	Leu	Ala	Pro	Gln	Ala	Gly	Ala	Arg	Glu	Lys	Val
			50			55				60					
Ala	Arg	Ser	Trp	Tyr	Cys	Asn	Arg	Gly	Leu	Val	Ser	Leu	Ser	Ala	Lys
65					70				75					80	
Ile	Asp	Arg	Lys	Gly	Tyr	Thr	Pro	Gly	Glu	Val	Ile	Pro	Val	Phe	Ala
			85					90				95			
Glu	Ile	Asp	Asn	Gly	Ser	Thr	Arg	Pro	Val	Leu	Pro	Arg	Ala	Ala	Val
			100					105				110			
Val	Gln	Thr	Gln	Thr	Phe	Met	Ala	Arg	Gly	Ala	Arg	Lys	Gln	Lys	Arg
			115				120					125			
Ala	Val	Val	Ala	Ser	Leu	Ala	Gly	Glu	Pro	Val	Gly	Pro	Gly	Gln	Arg
			130			135					140				
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145					150				155					160	
Ile	Leu	His	Cys	Arg	Val	Leu	His	Val	Asp	Tyr	Ala	Leu	Lys	Val	Cys
			165					170					175		
Val	Asp	Ile	Pro	Gly	Thr	Ser	Lys	Leu	Leu	Glu	Leu	Pro	Leu	Val	
			180					185				190			
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Glu	Arg	Pro	Glu	Ala	Pro	Pro	Glu	Tyr	Ser	Glu	Val	Val	Ala	Asp	Thr
225					230					235				240	
Glu	Glu	Ala	Ala	Leu	Gly	Gln	Ser	Pro	Phe	Pro	Leu	Pro	Gln	Asp	Pro
				245					250				255		
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			260				265					270			
Tyr	Arg	Pro	Pro	Pro	Leu	Tyr	Ser	Glu	Glu	Asp	Pro	Asn	Pro	Leu	Leu
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Gly	Asp	Met	Arg	Pro	Arg	Cys	Met	Thr	Cys						
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&lt;210&gt; 3059

&lt;211&gt; 1411

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3059

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180
agcaagagaa aaaagaaaca ccgtagacgg tcctcctcga gcagttcttc agatagtaga
240
acatacagcc gaaagaaagg aggaaggaaa tcaagatcaa agtcaagatc ttggtccaga
300
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900
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1020

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 1200  
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 1320  
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 1380  
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 1411

&lt;210&gt; 3060

&lt;211&gt; 334

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3060

Met Gly Arg Arg Ser Asp Thr Glu Glu Glu Ser Arg Ser Lys Arg  
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 Lys Lys Lys His Arg Arg Arg Ser Ser Ser Ser Ser Ser Ser  
 20 25 30  
 Arg Thr Tyr Ser Arg Lys Lys Gly Gly Arg Lys Ser Arg Ser Lys Ser  
 35 40 45  
 Arg Ser Trp Ser Arg Asp Leu Gln Pro Arg Ser His Ser Tyr Asp Arg  
 50 55 60  
 Arg Arg Arg His Arg Ser Ser Ser Ser Ser Ser Tyr Gly Ser Arg Arg  
 65 70 75 80  
 Lys Arg Ser Arg Ser Arg Ser Arg Gly Arg Gly Lys Ser Tyr Arg Val  
 85 90 95  
 Gln Arg Ser Arg Ser Lys Ser Arg Thr Arg Arg Ser Arg Ser Arg Pro  
 100 105 110  
 Arg Leu Arg Ser His Ser Arg Ser Ser Glu Arg Ser Ser His Arg Arg  
 115 120 125  
 Thr Arg Ser Arg Ser Arg Asp Arg Glu Arg Arg Lys Gly Arg Asp Lys  
 130 135 140  
 Glu Lys Arg Glu Lys Glu Lys Asp Lys Gly Lys Asp Lys Glu Leu His  
 145 150 155 160  
 Asn Ile Lys Arg Gly Glu Ser Gly Asn Ile Lys Ala Gly Leu Glu His  
 165 170 175  
 Leu Pro Pro Ala Glu Gln Ala Lys Ala Arg Leu Gln Leu Val Leu Glu  
 180 185 190  
 Ala Ala Ala Lys Ala Asp Glu Ala Leu Lys Ala Lys Glu Arg Asn Glu  
 195 200 205  
 Glu Glu Ala Lys Arg Arg Lys Glu Glu Asp Gln Ala Thr Leu Val Glu  
 210 215 220  
 Gln Val Lys Arg Val Lys Glu Ile Glu Ala Ile Glu Ser Asp Ser Phe  
 225 230 235 240  
 Val Gln Gln Thr Phe Arg Ser Ser Lys Glu Val Lys Lys Ser Val Glu  
 245 250 255  
 Pro Ser Glu Val Lys Gln Ala Thr Ser Thr Ser Gly Pro Ala Ser Ala



	260		265		270										
Val	Ala	Asp	Pro	Pro	Ser	Thr	Glu	Lys	Glu	Ile	Asp	Pro	Thr	Ser	Ile
	275		280		285										
Pro	Thr	Ala	Ile	Lys	Tyr	Gln	Asp	Asp	Asn	Ser	Leu	Ala	His	Pro	Asn
	290		295		300										
Leu	Phe	Ile	Glu	Lys	Ala	Asp	Ala	Glu	Glu	Lys	Trp	Phe	Lys	Arg	Leu
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Ile	Ala	Leu	Arg	Gln	Glu	Arg	Leu	Met	Gly	Ser	Pro	Val	Ala		
			325		330										

&lt;210&gt; 3061

&lt;211&gt; 1554

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3061

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180
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240
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300
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360
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1140

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&lt;210&gt; 3062

&lt;211&gt; 146

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3062

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 20 25 30  
 Ser Ser Ser Phe Arg Leu Leu Gln Glu Ala Leu Glu Ala Glu Glu Arg  
 35 40 45  
 Gly Gly Thr Pro Ala Phe Leu Pro Ser Ser Leu Ser Pro Gln Ser Ser  
 50 55 60  
 Leu Pro Ala Ser Arg Ala Leu Ala Thr Pro Pro Lys Leu His Thr Cys  
 65 70 75 80  
 Glu Lys Cys Ser Thr Ser Ile Ala Asn Gln Ala Val Arg Ile Gln Glu  
 85 90 95  
 Gly Arg Tyr Arg His Pro Gly Cys Tyr Thr Cys Ala Asp Cys Gly Leu  
 100 105 110  
 Asn Leu Lys Met Arg Gly His Phe Trp Val Gly Asp Glu Leu Tyr Cys  
 115 120 125  
 Glu Lys His Ala Arg Gln Arg Tyr Ser Ala Pro Ala Thr Leu Ser Ser  
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 Arg Ala  
 145

&lt;210&gt; 3063

&lt;211&gt; 386

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3063

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 120  
 ttacactcca gggatctgca ctccatgata gtggcagctt ttcagtgtct ctgtgtctgg  
 180

ctgacagagc accctgatat gcttgatgaa aaggactacc ttaaggaagt actggagatt  
 240  
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 360  
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 386

<210> 3064

<211> 128

<212> PRT

<213> Homo sapiens

<400> 3064

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Ser	Gly	Asp	Arg	Lys	Arg	Ala	Ile	Ser	Ser	Val	Cys	Thr	Tyr	Ile	Val
			20				25				30				
Tyr	Gln	Cys	Ser	Arg	Pro	Ala	Pro	Leu	His	Ser	Arg	Asp	Leu	His	Ser
		35				40					45				
Met	Ile	Val	Ala	Ala	Phe	Gln	Cys	Leu	Cys	Val	Trp	Leu	Thr	Glu	His
	50				55					60					
Pro	Asp	Met	Leu	Asp	Glu	Lys	Asp	Tyr	Leu	Lys	Glu	Val	Leu	Glu	Ile
65				70					75				80		
Val	Glu	Leu	Gly	Ile	Ser	Gly	Ser	Lys	Ser	Lys	Asn	Asn	Glu	Gln	Glu
			85				90						95		
Val	Lys	Tyr	Lys	Gly	Asp	Lys	Glu	Pro	Asn	Pro	Ala	Ser	Met	Arg	Val
			100				105						110		
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<210> 3065

<211> 2104

<212> DNA

<213> Homo sapiens

<400> 3065

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 180  
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 240  
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 360  
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gaaggcatgt cagagcggga gcgacaggtg atgaagaagc tgaaggaggt ggtggacaaa  
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720  
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1020  
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1140  
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1200  
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<212> PRT  
<213> Homo sapiens

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Pro Val Gly Glu Glu Ser Ile Ser Asp Ala Glu Lys Val Ala Met Xaa  
50 55 60  
Ser Gln Gly Pro Xaa Thr Ala Pro Gly Ser Pro Cys Arg Ser Cys Gly  
65 70 75 80  
Thr Cys Cys Thr Arg Gly Thr Xaa Leu Lys Ser Lys Val Phe Leu Leu  
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Gln Glu Glu Leu Ala Tyr Tyr Lys Ser Glu Glu Met Glu Glu Glu Asn  
100 105 110  
Arg Ile Pro Gln Pro Pro Pro Ile Ala His Pro Arg Thr Ser Pro Gln  
115 120 125  
Pro Glu Ser Gly Ile Lys Arg Leu Phe Ser Phe Phe Ser Arg Asp Lys  
130 135 140  
Lys Arg Leu Ala Asn Thr Gln Arg Asn Val His Ile Gln Glu Ser Phe  
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<210> 3067  
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<212> DNA  
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<210> 3068  
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 <212> PRT  
 <213> Homo sapiens

<400> 3068  
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 35 40 45  
 Arg Glu Pro Thr Ala Gly Ser Pro Pro Cys Ser Leu Pro Arg Pro Asp  
 50 55 60  
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 65 70 75 80  
 Lys Ser Asp Pro Pro Pro Pro Pro Gly Lys Phe Lys Ser Phe Leu  
 85 90 95  
 Pro Pro Arg Ser Pro Gly Asn Ser Ala Leu Gly Pro Arg Arg Gly Trp  
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 Gly Trp Ile Ala Ala Gly Gly Ala Pro Ala Met Pro Arg Pro Pro Ser  
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 130 135 140  
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<210> 3069  
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 <212> DNA  
 <213> Homo sapiens

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&lt;210&gt; 3070

&lt;211&gt; 153

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3070

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      20           25           30
Leu Gly Ser Ser Val Leu His Trp Gly Tyr Leu Pro Ser Lys Asp Asp
      35           40           45
Tyr Phe Gln Val Leu Cys Val Ala Asp Val Val Ile Ser Thr Ala Lys
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His Glu Phe Phe Gly Val Ala Met Leu Glu Ala Val Tyr Cys Gly Cys
      65           70           75           80
Tyr Pro Leu Cys Pro Lys Asp Leu Val Tyr Pro Glu Ile Phe Pro Ala
      85           90           95
Glu Tyr Leu Tyr Ser Thr Pro Glu Gln Leu Ser Lys Arg Leu Gln Asn
      100          105          110
Phe Cys Lys Arg Pro Asp Ile Ile Arg Lys His Leu Tyr Lys Gly Glu
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Ile Ala Pro Phe Ser Trp Ala Ala Leu His Gly Lys Phe Arg Ser Leu
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Leu Thr Thr Glu Pro Arg Glu Asp Leu
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&lt;210&gt; 3071

&lt;211&gt; 3343

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3071

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<211> 349

<212> PRT

<213> Homo sapiens

<400> 3072

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			20					25					30		
Lys	Glu	Ser	Arg	Gly	Leu	Arg	Gln	Gln	Gly	Thr	Ser	Val	Ala	Gln	Ser
			35				40					45			
Gly	Ala	Gln	Ala	Pro	Gly	Arg	Ala	His	Arg	Cys	Ala	His	Cys	Arg	Arg
			50				55				60				
His	Phe	Pro	Gly	Trp	Val	Ala	Leu	Trp	Leu	His	Thr	Arg	Arg	Cys	Gln
65					70				75					80	
Ala	Arg	Leu	Pro	Leu	Pro	Cys	Pro	Glu	Cys	Gly	Arg	Arg	Phe	Arg	His
			85					90						95	
Ala	Pro	Phe	Leu	Ala	Leu	His	Arg	Gln	Val	His	Ala	Ala	Ala	Thr	Pro
			100					105						110	
Asp	Leu	Gly	Phe	Ala	Cys	His	Leu	Cys	Gly	Gln	Ser	Phe	Arg	Gly	Trp

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Ile Ala Cys Pro Lys Cys Glu Arg Arg Phe Trp Arg Arg Lys Gln Leu
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Arg Ala His Leu Arg Arg Cys His Pro Pro Ala Pro Glu Ala Arg Pro
      165              170              175
Phe Ile Cys Gly Asn Cys Gly Arg Ser Phe Ala Gln Trp Asp Gln Leu
      180              185              190
Val Ala His Lys Arg Val His Val Ala Glu Ala Leu Glu Glu Ala Ala
      195              200              205
Ala Lys Ala Leu Gly Pro Arg Pro Arg Gly Arg Pro Ala Val Thr Ala
      210              215              220
Pro Arg Pro Gly Gly Asp Ala Val Asp Arg Pro Phe Gln Cys Ala Cys
225              230              235              240
Cys Gly Lys Arg Phe Arg His Lys Pro Asn Leu Ile Ala His Arg Arg
      245              250              255
Val His Thr Gly Glu Arg Pro His Gln Cys Pro Glu Cys Gly Lys Arg
      260              265              270
Phe Thr Asn Lys Pro Tyr Leu Thr Ser His Arg Arg Ile His Thr Gly
      275              280              285
Glu Lys Pro Tyr Pro Cys Lys Glu Cys Gly Arg Arg Phe Arg His Lys
      290              295              300
Pro Asn Leu Leu Ser His Ser Lys Ile His Xaa Ser Asp Pro Arg Gly
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Arg Pro Arg Pro Pro Ala Arg Gly Ala Pro Ser Cys Gln Pro Ala
      325              330              335
Pro Arg Ser Pro Arg Pro Ser Pro Pro Arg Arg Tyr Leu
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&lt;210&gt; 3073

&lt;211&gt; 791

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3073

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<210> 3074

<211> 263

<212> PRT

<213> Homo sapiens

<400> 3074

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		20					25					30			
Ser	Cys	Glu	Phe	Leu	Leu	Ala	Gly	Ala	Gly	Gly	Ala	Gly	Ala	Gly	Ala
	35					40					45				
Ala	Pro	Gly	Pro	His	Leu	Pro	Pro	Arg	Gly	Ser	Val	Pro	Gly	Asp	Pro
	50				55					60					
Val	Arg	Ile	His	Cys	Asn	Ile	Thr	Glu	Ser	Tyr	Pro	Ala	Val	Pro	Pro
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Ile	Trp	Ser	Val	Glu	Ser	Asp	Asp	Pro	Asn	Leu	Ala	Ala	Val	Leu	Glu
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Arg	Leu	Val	Asp	Ile	Lys	Lys	Gly	Asn	Thr	Leu	Leu	Leu	Gln	His	Leu
		100					105						110		
Lys	Arg	Ile	Ile	Ser	Asp	Leu	Cys	Lys	Leu	Tyr	Asn	Leu	Pro	Gln	His
	115					120					125				
Pro	Asp	Val	Glu	Met	Leu	Asp	Gln	Pro	Leu	Pro	Ala	Glu	Gln	Cys	Thr
	130				135					140					
Gln	Glu	Asp	Val	Ser	Ser	Glu	Asp	Glu	Asp	Glu	Glu	Met	Pro	Glu	Asp
145				150					155				160		
Thr	Glu	Asp	Leu	Asp	His	Tyr	Glu	Met	Lys	Glu	Glu	Glu	Pro	Ala	Glu
			165				170						175		
Gly	Lys	Lys	Ser	Glu	Asp	Asp	Gly	Ile	Gly	Lys	Glu	Asn	Leu	Ala	Ile
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Leu	Glu	Lys	Ile	Lys	Lys	Asn	Gln	Arg	Gln	Asp	Tyr	Leu	Asn	Gly	Ala
	195					200					205				
Val	Ser	Gly	Ser	Val	Gln	Ala	Thr	Asp	Arg	Leu	Met	Lys	Glu	Leu	Gln
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Gly	Tyr	Ile	Thr	Xaa	Ser	Gln	Ser	Phe	Lys	Gly	Gly	Asn	Tyr	Xaa	Ser
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Ser	Asn	Ser	Trp	Asn	Asp	Ser	Leu	Tyr	Gly	Trp	Asp	Val	Gln	Leu	Leu
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<210> 3075

<211> 603

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3075

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ccg
603

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&lt;210&gt; 3076

&lt;211&gt; 201

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3076

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Pro Pro Pro Pro Phe Phe Ser Pro Val Gly Ala Lys Lys Lys Asn
20      25      30
Val Gly Pro Gln Lys Lys Lys Lys Lys Lys Lys Val Leu Gly Gly
35      40      45
Gly Arg Phe Gly Gln Val His Arg Cys Thr Glu Lys Ser Thr Gly Leu
50      55      60
Ala Leu Ala Ala Lys Ile Ile Lys Val Lys Asn Val Lys Asp Arg Glu
65      70      75      80
Asp Val Lys Asn Glu Val Asn Ile Met Asn Gln Leu Ser His Val Asn
85      90      95
Leu Ile Gln Leu Tyr Asp Ala Phe Glu Ser Lys Ser Ser Phe Thr Leu
100     105     110
Ile Met Glu Tyr Val Asp Gly Gly Glu Leu Phe Asp Arg Ile Thr Asp
115     120     125
Glu Lys Tyr His Leu Thr Glu Leu Asp Val Val Leu Phe Thr Arg Gln
130     135     140
Ile Cys Glu Gly Val His Tyr Leu His Gln His Tyr Ile Leu His Leu
145     150     155     160
Asp Leu Lys Pro Glu Asn Ile Leu Cys Val Ser Gln Thr Gly His Gln

```

165 170 175  
 Ile Lys Ile Ile Asp Phe Gly Leu Ala Arg Arg Tyr Lys Pro Arg Glu  
 180 185 190  
 Lys Leu Lys Val Asn Phe Gly Thr Pro  
 195 200

&lt;210&gt; 3077

&lt;211&gt; 1377

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3077

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 120  
 gtggagggtgg cgaacggccg ctccctgggtg tggggagccg aggcgggtgca ggccctccgg  
 180  
 gagcgcttgg gtgtgggggg ccgcacggta ggcgccctgc cccgcgggcc ccgccagaac  
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 300  
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 360  
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 420  
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 480  
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 900  
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 960  
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 1377

<210> 3078

<211> 310

<212> PRT

<213> Homo sapiens

<400> 3078

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Glu	Ala	Val	Gln	Ala	Leu	Arg	Glu	Arg	Leu	Gly	Val	Gly	Gly	Arg	Thr
		20					25					30			
Val	Gly	Ala	Leu	Pro	Arg	Gly	Pro	Arg	Gln	Asn	Ser	Arg	Leu	Gly	Leu
	35					40					45				
Pro	Leu	Leu	Leu	Met	Pro	Glu	Glu	Ala	Arg	Leu	Leu	Ala	Glu	Ile	Gly
	50					55					60				
Ala	Val	Thr	Leu	Val	Ser	Ala	Pro	Arg	Pro	Asp	Ser	Arg	His	His	Ser
65				70					75				80		
Leu	Ala	Leu	Thr	Ser	Phe	Lys	Arg	Gln	Gln	Glu	Glu	Ser	Phe	Gln	Glu
			85					90					95		
Gln	Ser	Ala	Leu	Ala	Ala	Glu	Ala	Arg	Glu	Thr	Arg	Arg	Gln	Glu	Leu
		100					105						110		
Leu	Glu	Lys	Ile	Thr	Glu	Gly	Gln	Ala	Ala	Lys	Lys	Gln	Lys	Leu	Glu
	115					120						125			
Gln	Ala	Ser	Gly	Ala	Ser	Ser	Ser	Gln	Glu	Ala	Gly	Ser	Ser	Gln	Ala
	130					135					140				
Ala	Lys	Glu	Asp	Glu	Thr	Ser	Asp	Gly	Gln	Ala	Ser	Gly	Glu	Gln	Glu
145				150					155				160		
Glu	Ala	Gly	Pro	Ser	Ser	Ser	Gln	Ala	Gly	Pro	Ser	Asn	Gly	Val	Ala
			165					170				175			
Pro	Leu	Pro	Arg	Ser	Ala	Leu	Leu	Val	Gln	Leu	Ala	Thr	Ala	Arg	Pro
		180					185					190			
Arg	Pro	Val	Lys	Ala	Arg	Pro	Leu	Asp	Trp	Arg	Val	Gln	Ser	Lys	Asp
	195					200						205			
Trp	Pro	His	Ala	Gly	Arg	Pro	Ala	His	Glu	Leu	Arg	Tyr	Ser	Ile	Tyr
	210					215					220				
Arg	Asp	Leu	Trp	Glu	Arg	Gly	Phe	Phe	Leu	Ser	Ala	Ala	Gly	Lys	Phe
225				230					235				240		
Gly	Gly	Asp	Phe	Leu	Val	Tyr	Pro	Gly	Asp	Pro	Leu	Arg	Phe	His	Ala
			245					250					255		
His	Tyr	Ile	Ala	Gln	Cys	Trp	Ala	Pro	Glu	Asp	Thr	Ile	Pro	Leu	Gln
		260					265					270			
Asp	Leu	Val	Ala	Ala	Gly	Arg	Leu	Gly	Thr	Ser	Val	Arg	Lys	Thr	Leu
	275						280					285			
Leu	Leu	Cys	Ser	Pro	Gln	Pro	Asp	Gly	Lys	Val	Val	Tyr	Thr	Ser	Leu
	290					295					300				
Gln	Trp	Ala	Ser	Leu	Gln										
305					310										

<210> 3079

<211> 1785

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3079

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180  
gcctctgatg acctggaagc cctgggtaca ctgagcctgg ggaccacaga ggagaaggca  
240  
gcagctgagg cggctgtgcc caggaccatt ggggccgagc tgatggagct ggtgctggaga  
300  
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360  
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420  
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600  
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720  
tgctttggcg ccatgtgcag cctggatgca gccatcatct ccacgcttgt gtcacccgtg  
780  
ctgcctgtag agctggcgag ggacatgcag acagacacgc aggaccacca gaaactctgt  
840  
tactctgccc tcatactggc catggtcttc tccatgggag aggcagtgcc ctatgcacac  
900  
tatgagcacc tgggcacgcc ttctgcccag ttctactga acatcgtcga ggatgggctg  
960  
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1020  
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1080  
gtcaagatct tctccgagaa gctgttggtg ctctgaaca gaggggatga ccctgtgcgc  
1140  
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1380  
caccctgtgg agcgttctgg ggtcccgccc ctgacctctt cctgggcttc gggatgcccc  
1440  
cgtcctctgc acccggcgct gcagctcgtt atcgattccg cctttggagg ccggtccgta  
1500



tagtgacttc ccggactctc tcacggttag ccggcaaccc gcggagcccc ctcccccatg  
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 1620  
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 1680  
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 1785

<210> 3080

<211> 500

<212> PRT

<213> Homo sapiens

<400> 3080

Met	Asp	Thr	Leu	Tyr	Thr	Gly	Ser	Ser	Pro	Ser	Glu	Pro	Gly	Ser	Ser	1	5	10	15
Cys	Ser	Pro	Thr	Pro	Pro	Pro	Val	Pro	Arg	Arg	Gly	Thr	His	Thr	Thr	20	25	30	
Val	Ser	Gln	Val	Gln	Pro	Pro	Pro	Ser	Lys	Ala	Ser	Ala	Pro	Glu	Pro	35	40	45	
Pro	Ala	Glu	Glu	Glu	Val	Ala	Thr	Gly	Thr	Thr	Ser	Ala	Ser	Asp	Asp	50	55	60	
Leu	Glu	Ala	Leu	Gly	Thr	Leu	Ser	Leu	Gly	Thr	Thr	Glu	Glu	Lys	Ala	65	70	75	
Ala	Ala	Glu	Ala	Ala	Val	Pro	Arg	Thr	Ile	Gly	Ala	Glu	Leu	Met	Glu	85	90	95	
Leu	Val	Arg	Arg	Asn	Thr	Gly	Leu	Ser	His	Glu	Leu	Cys	Arg	Val	Ala	100	105	110	
Ile	Gly	Ile	Ile	Val	Gly	His	Ile	Gln	Ala	Ser	Val	Pro	Ala	Ser	Ser	115	120	125	
Pro	Val	Met	Glu	Gln	Val	Leu	Leu	Ser	Leu	Val	Glu	Gly	Lys	Asp	Leu	130	135	140	
Ser	Met	Ala	Leu	Pro	Ser	Gly	Gln	Val	Cys	His	Asp	Gln	Gln	Arg	Leu	145	150	155	
Glu	Val	Ile	Phe	Ala	Asp	Leu	Ala	Arg	Arg	Lys	Asp	Asp	Ala	Gln	Gln	165	170	175	
Arg	Ser	Trp	Ala	Leu	Tyr	Glu	Asp	Glu	Gly	Val	Ile	Arg	Cys	Tyr	Leu	180	185	190	
Glu	Glu	Leu	Leu	His	Ile	Leu	Thr	Asp	Ala	Asp	Pro	Glu	Val	Cys	Lys	195	200	205	
Lys	Met	Cys	Lys	Arg	Asn	Glu	Phe	Glu	Ser	Val	Leu	Ala	Leu	Val	Ala	210	215	220	
Tyr	Tyr	Gln	Met	Glu	His	Arg	Ala	Ser	Leu	Arg	Leu	Leu	Leu	Lys	225	230	235		
Cys	Phe	Gly	Ala	Met	Cys	Ser	Leu	Asp	Ala	Ala	Ile	Ile	Ser	Thr	Leu	245	250	255	
Val	Ser	Ser	Val	Leu	Pro	Val	Glu	Leu	Ala	Arg	Asp	Met	Gln	Thr	Asp	260	265	270	
Thr	Gln	Asp	His	Gln	Lys	Leu	Cys	Tyr	Ser	Ala	Leu	Ile	Leu	Ala	Met	275	280	285	
Val	Phe	Ser	Met	Gly	Glu	Ala	Val	Pro	Tyr	Ala	His	Tyr	Glu	His	Leu				

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      290              295              300
Gly Thr Pro Phe Ala Gln Phe Leu Leu Asn Ile Val Glu Asp Gly Leu
305              310              315              320
Pro Leu Asp Thr Thr Glu Gln Leu Pro Asp Leu Cys Val Asn Leu Leu
      325              330              335
Leu Ala Leu Asn Leu His Leu Pro Ala Ala Asp Gln Asn Val Ile Met
      340              345              350
Ala Ala Leu Ser Lys His Ala Asn Val Lys Ile Phe Ser Glu Lys Leu
      355              360              365
Leu Leu Leu Leu Asn Arg Gly Asp Asp Pro Val Arg Ile Phe Lys His
      370              375              380
Glu Pro Gln Pro Pro His Ser Val Leu Lys Phe Leu Gln Asp Val Phe
      385              390              395              400
Gly Ser Pro Ala Thr Ala Ala Ile Phe Tyr His Thr Asp Met Met Ala
      405              410              415
Leu Ile Asp Ile Thr Val Arg His Ile Ala Asp Leu Ser Pro Gly Asp
      420              425              430
Lys Gly Pro Phe Gly Ala Gly Gln Arg Pro Trp Pro Gly Val Pro Arg
      435              440              445
Leu Leu Glu Pro Gly Ser Thr Pro Ser Arg Glu Pro His Pro Val Glu
      450              455              460
Arg Ser Gly Val Pro Ala Leu Thr Ser Ser Trp Ala Ser Gly Cys Pro
      465              470              475              480
Arg Pro Leu His Pro Ala Leu Gln Leu Val Ile Asp Ser Ala Phe Gly
      485              490              495
Gly Arg Ser Val
      500

```

&lt;210&gt; 3081

&lt;211&gt; 1902

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3081

```

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ccacatggcg acgaacttgt ggacggacac ggagcccggt cgctcccccc ggccacgagc
120
caaagcattc cgaccttcta cttccccaga ggacgcccgc aggactccgt caacgtggat
180
gccgtcatca gcaagatcga gaggaccttc gcccggttcc cccacgagag ggccaccatg
240
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360
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480
aacacgcacc cggggctgtc gttcctgaag gaggcgtccg agttccactc gcgctacatc
540
accacggtca tccagcggat cttctacgcc gtgaaccggt cctgggtccg caggatcacc
600

```

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 660  
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 720  
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 780  
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 840  
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 1380  
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 1560  
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 accggcgct cccgggcgcc tcagtcctgg acaggagcct ccaccacagg ctgtgtgaat  
 1860  
 gttttgtgta aacgtacaaa accgtttctg gcgatcacga aa  
 1902

&lt;210&gt; 3082

&lt;211&gt; 414

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3082

Met Asp Asp Met Gly Leu Val Ala Lys Ala Cys Gly Cys Pro Leu Tyr

1

5

10

15

Trp Lys Gly Pro Leu Phe Tyr Gly Ala Gly Gly Glu Arg Thr Gly Ser

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<210> 3083
<211> 610
<212> DNA
<213> Homo sapiens
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&lt;400&gt; 3083

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 120  
 gactgggcag gccgggcccg ggcactgggt ggtgacagtc atacttcgtg gagcccagcg  
 180  
 agcatcccg gcaagcacta ccaggctgtg ggtctgcacc tctggaaggt agagaagcgg  
 240  
 cgggtcaatc tgcctagggt cctgtccatg ccccccgtgg ctggcaccgc gtgccatgca  
 300  
 tacgaccggg aggtccacct gcgttgtag ctctcaccgg gctactacct ggctgtcccc  
 360  
 agcacttcc tgaaggacgc gccaggggag ttctgtctcc gagtcttctc taccgggcga  
 420  
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 480  
 ccaaggcagg atttgggcac tttccctctg tggttggcag gtgtccatgt gggaactgag  
 540  
 gccaccggga acctgctgcc agcgccctcc catgtttgtc ttcttggcag cgccatcagg  
 600  
 gcagtggcca  
 610

&lt;210&gt; 3084

&lt;211&gt; 144

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3084

Xaa Arg Pro Ser Cys Trp Glu Pro Val Arg Pro Ser Gly Ser Ser His  
 1 5 10 15  
 Leu Ser Trp His Arg Gly Pro Pro Cys Glu Val Tyr Ile Ala Val Leu  
 20 25 30  
 Gln Arg Ser Arg Leu His Ala Ala Asp Trp Ala Gly Arg Ala Arg Ala  
 35 40 45  
 Leu Val Gly Asp Ser His Thr Ser Trp Ser Pro Ala Ser Ile Pro Gly  
 50 55 60  
 Lys His Tyr Gln Ala Val Gly Leu His Leu Trp Lys Val Glu Lys Arg  
 65 70 75 80  
 Arg Val Asn Leu Pro Arg Val Leu Ser Met Pro Pro Val Ala Gly Thr  
 85 90 95  
 Ala Cys His Ala Tyr Asp Arg Glu Val His Leu Arg Cys Glu Leu Ser  
 100 105 110  
 Pro Gly Tyr Tyr Leu Ala Val Pro Ser Thr Phe Leu Lys Asp Ala Pro  
 115 120 125  
 Gly Glu Phe Leu Leu Arg Val Phe Ser Thr Gly Arg Val Ser Leu Arg  
 130 135 140

&lt;210&gt; 3085

&lt;211&gt; 1080

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3085

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120
caaaagataa gaaaatggaa attaaggga atctgttcag caacaaagat cttgaggaat
180
tatgcagaca tatcaacaac agaaaccaag cagcacagca ttctcagaag cagtctactg
240
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300
ctgacggagt tatttattca attagaacaa atgggtgtgct tctatttata ccaaggtttg
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420
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480
ctacaacaga tggggaatct gttacgttcc atttgtttga ccatgtaacc gtaagaatat
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600
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1080

```

&lt;210&gt; 3086

&lt;211&gt; 58

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3086

```

Met Cys Val Thr Gln Cys Ser Ser Arg Ser Gly Leu Gly Ser Tyr Phe
1           5           10           15
Ala Tyr Met Xaa Asn Val Leu Ser Arg Ala Arg Trp Leu Thr Pro Val
20           25           30
Thr Pro Ala Leu Trp Glu Ala Glu Ala Gly Gly Ser Arg Gly Gln Glu
35           40           45
Ile Glu Thr Ile Leu Ala Asn Thr Val Lys
50           55

```

&lt;210&gt; 3087

&lt;211&gt; 2329

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3087

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120  
gtggaggtgg agccgccccé agatcggcca gtccgagcgt gccggacaca gcagccggaa  
180  
atggagcgca cccatattca gcaactcctg gaacacttcc tccgccagct tcagagaaaa  
240  
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&lt;210&gt; 3088

&lt;211&gt; 280

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3088

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Lys	Lys	Arg	Lys	Arg	Glu	Arg	Glu	His	Cys	Asp	Thr	Glu	Gly	Glu	Ala
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Asp	Asp	Phe	Asp	Pro	Gly	Lys	Lys	Val	Glu	Val	Glu	Pro	Pro	Pro	Asp
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His	Ile	Gln	Gln	Leu	Leu	Glu	His	Phe	Leu	Arg	Gln	Leu	Gln	Arg	Lys
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Asp	Pro	His	Gly	Phe	Phe	Ala	Phe	Pro	Val	Thr	Asp	Ala	Ile	Ala	Pro
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Gly	Tyr	Ser	Met	Ile	Ile	Lys	His	Pro	Met	Asp	Phe	Gly	Thr	Met	Lys
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Asp	Lys	Ile	Val	Ala	Asn	Glu	Tyr	Lys	Ser	Val	Thr	Glu	Phe	Lys	Ala
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Asp	Phe	Lys	Leu	Met	Cys	Asp	Asn	Ala	Met	Thr	Tyr	Asn	Arg	Pro	Asp



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Lys Ser Lys Lys Pro Ser Arg Glu Val Ile Ser Cys Met Phe Glu Pro
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Glu Gly Asn Ala Cys Ser Leu Thr Asp Ser Thr Ala Glu Glu His Val
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Leu Ala Leu Val Glu His Ala Ala Asp Glu Ala Arg Asp Arg Ile Asn
225              230              235              240
Arg Phe Leu Pro Gly Gly Lys Met Gly Tyr Leu Lys Arg Asn Gly Asp
      245              250              255
Gly Ser Leu Leu Tyr Ser Val Val Asn Thr Ala Glu Pro Asn Ala Asp
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Glu Glu Glu Thr His Pro Val Thr
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&lt;210&gt; 3089

&lt;211&gt; 722

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3089

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<400> 3090

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Lys Gly Pro Leu Leu Glu Glu Gln Ala Leu Thr Lys Ala Ala Glu Gly
      35           40           45
Gly Leu Ser Ser Pro Glu Phe Ser Glu Leu Cys Ile Trp Leu Gly Ser
      50           55           60
Gln Ile Lys Ser Leu Cys Asn Leu Glu Glu Ser Ile Thr Ser Ala Gly
      65           70           75           80
Arg Asp Asp Leu Glu Ser Phe Gln Leu Glu Ile Ser Gly Phe Leu Lys
      85           90           95
Glu Met Ala Cys Pro Tyr Ser Val Leu Val Ser Gly Asp Ile Lys Glu
      100          105          110
Arg Leu Thr Lys Lys Asp Asp Cys Leu Lys Leu Leu Phe Leu Ser
      115          120          125
Thr Glu Leu Gln Ala Leu Gln Ile Leu Gln Asn Lys Lys His Lys Asn
      130          135          140
Ser Gln Leu Asp Lys Asn Ser Glu Val Tyr Gln Glu Val Gln Ala Met
      145          150          155          160
Phe Asp Thr Leu Gly Ile Pro Lys Ser Thr Thr Ser Asp Ile Pro His
      165          170          175
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      180          185          190
Gln Lys Asn His Val Gly Lys Pro Leu Leu Lys Met Asp Leu Asn Ser
      195          200          205
Glu Gln Ala Glu Gln Leu Glu Arg Ile Asn Asp Ala Leu Ser Cys Glu
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 Gly Thr Lys Gly Leu Gly Cys Ser Leu Ser Val Pro Asp Pro Cys Gln  
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 Gly Cys Val Leu Ile Met Tyr Lys Ala Ile Trp Tyr Asp Gln Phe Thr  
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 Cys Pro Asp Gly Phe Leu Leu Arg His Lys Ile Cys Thr Pro Leu Thr  
 115 120 125  
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<211> 1359

<212> PRT

<213> Homo sapiens

<400> 3098

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		1070
Glu Cys Gln Asn Leu Gly Lys Leu Thr Thr Val Gln Ile Gly His Asp		
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		1150
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		1215
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Thr Arg Ala Arg Asn Phe Cys Arg Phe Val Thr Ala Ile Asn Asn Thr		
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Pro Arg Asn Ile Gly Lys Asp Gly Lys Phe Gln Met Leu Val Cys Leu		
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Gly Ala Arg Asp His Leu Leu His His Trp Ile Ala Leu Leu Ala Asp		
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Cys Pro Ile Thr Ala His Met Tyr Glu Asp Val Ala Leu Ile Lys Asp		
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His Thr Leu Val Asn Ser Leu Ile Arg Val Leu Gln Thr Leu Gln Glu		
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 <212> DNA  
 <213> Homo sapiens

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Ile Ile Cys Phe Cys Val Trp Met Ala Ala Ile Leu Leu Ser Ile Pro
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Gln Leu Val Phe Tyr Thr Val Asn Asp Asn Ala Arg Cys Ile Pro Ile
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Phe Pro Arg Tyr Leu Gly Thr Ser Met Lys Ala Leu Ile His Met Leu
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Glu Ile Cys Ile Gly Phe Val Val Pro Phe Leu Ile Met Gly Val
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&lt;210&gt; 3101

&lt;211&gt; 2623

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3101

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&lt;210&gt; 3102

&lt;211&gt; 410

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3102

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Pro Pro Asp Asp Leu Asp Leu Phe Pro Thr Pro Asp Pro His Tyr Glu
 50           55           60
Lys Lys Tyr Tyr Phe Pro Val Arg Glu Leu Glu Arg Ser Leu Arg Phe
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Asp Met Lys Gly Asp Asp Val Ile Val Phe Leu His Ile Gln Lys Thr
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Gly Gly Thr Thr Phe Gly Arg His Leu Val Gln Asn Val Arg Leu Glu
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Val Pro Cys Asp Cys Arg Pro Gly Gln Lys Lys Cys Thr Cys Tyr Arg
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Phe Tyr Tyr Ile Thr Leu Leu Arg Asp Pro Val Ser Arg Tyr Leu Ser
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Ser Leu Val Gly Cys Tyr Asn Leu Ser Phe Ile Pro Glu Gly Lys Arg
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Gln Arg Leu Arg Ser Arg Glu Glu Arg Leu Leu His Arg Ala Lys Glu

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&lt;210&gt; 3103

&lt;211&gt; 1228

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3103

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<212> PRT
<213> Homo sapiens
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Pro Gly Gly Arg Leu Arg Thr Arg Arg Pro Ala Thr Ile Leu Ser Val
      35                    40                    45
Ala Ala Ala Trp Gln Arg Ala Ser Leu Gly Gln Trp Xaa Arg Arg Pro
      50                    55                    60
Val Ala Ala Leu Ala Pro Tyr Ser Asp Ser Leu Val Glu Pro Leu Val
65                    70                    75                    80
Cys Arg Leu Gln Val Leu Phe Leu Lys Lys Ala Gly Ser Glu Arg Pro
      85                    90                    95
Cys Glu Thr Thr Pro Gly Ala Lys Gly Asp Ser His Lys Thr Gln Val
      100                    105                    110
Leu Leu Glu His Arg Lys Val Ser Leu Gln Val Glu Glu Gly Arg Glu
      115                    120                    125
Ser Ser Phe Pro His Leu His Gly Cys Leu Val Ala Arg Ile Arg Cys
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<212> DNA
<213> Homo sapiens
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&lt;210&gt; 3106

&lt;211&gt; 1366

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3106

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Ala	Ser	Ser	Leu	Pro	Pro	Lys	Thr	Cys	Asp	Phe	Ala	Gln	Asp	Ser	Ser

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Tyr	Phe	Glu	Asp	Phe	Ser	Asn	Ile	Ser	Ile	Phe	Ser	Ser	Ser	Val	Asp				
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Ser	Leu	Ser	Asp	Ile	Val	Asp	Thr	Pro	Asp	Phe	Leu	Pro	Ala	Asp	Ser				
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Leu	Asn	Gln	Val	Ser	Thr	Ile	Trp	Asp	Asp	Asn	Pro	Ala	Pro	Ser	Thr				
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His	Asp	Lys	Leu	Phe	Gln	Leu	Ser	Arg	Pro	Phe	Ala	Gly	Phe	Glu	Asp				
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Phe	Leu	Pro	Ser	His	Ser	Thr	Pro	Leu	Leu	Val	Ser	Tyr	Gln	Glu	Gln				
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Ser	Val	Gln	Ser	Gln	Pro	Glu	Glu	Glu	Asp	Glu	Ala	Glu	Glu	Glu	Glu				
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Lys	Ser	Lys	Ile	Gly	Lys	Gln	His	Pro	Asp	Arg	Val	Val	Glu	Thr	Ser				
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Pro	Ser	Asp	Ser	Gly	Ala	Leu	Ser	Ala	Leu	Gln	Leu	Glu	Ala	Ile	Thr				
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Gly	Phe	Leu	Ile	Gly	Asp	Gly	Ala	Gly	Val	Gly	Lys	Gly	Arg	Thr	Val				
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Val	Tyr	Ala	Ser	Ala	Thr	Gly	Thr	Ser	Pro	Arg	Asn	Met	Ile	Tyr					
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Glu	Glu	Phe	Leu	His	Ala	Ile	Glu	Lys	Arg	Gly	Val	Gly	Ala	Met	Glu				
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Ile	Val	Ala	Met	Asp	Met	Lys	Val	Ser	Gly	Met	Tyr	Ile	Ala	Arg	Gln				
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485				490				495											
Pro	Ala	Phe	Glu	Cys	Val</														

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Arg Glu Glu Leu Ala Arg Asp Lys Cys Val Val Ile Gly Leu Gln Ser		
565	570	575
Thr Gly Glu Ala Arg Thr Arg Glu Val Leu Gly Glu Asn Asp Gly His		
580	585	590
Leu Asn Cys Phe Val Ser Ala Ala Glu Gly Val Phe Leu Ser Leu Ile		
595	600	605
Gln Lys His Phe Pro Ser Thr Lys Arg Lys Arg Asp Arg Gly Ala Gly		
610	615	620
Ser Lys Arg Lys Arg Arg Pro Arg Gly Arg Gly Ala Lys Ala Pro Arg		
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Leu Ala Cys Glu Thr Ala Gly Val Ile Arg Ile Ser Asp Asp Ser Ser		
645	650	655
Thr Glu Ser Asp Pro Gly Leu Asp Ser Asp Phe Asn Ser Ser Pro Glu		
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Ser Leu Val Asp Asp Asp Val Val Ile Val Asp Ala Val Gly Leu Pro		
675	680	685
Ser Asp Asp Arg Gly Ser Leu Cys Leu Leu Gln Arg Asp Pro His Gly		
690	695	700
Pro Gly Val Leu Glu Arg Val Glu Arg Leu Lys Gln Asp Leu Leu Asp		
705	710	715
Lys Val Arg Arg Leu Gly Arg Glu Leu Pro Val Asn Thr Leu Asp Glu		
725	730	735
Leu Ile Asp Gln Leu Gly Gly Pro Gln Arg Val Ala Glu Met Thr Gly		
740	745	750
Arg Lys Gly Arg Val Val Ser Arg Pro Asp Gly Thr Val Ala Phe Glu		
755	760	765
Ser Arg Ala Glu Gln Gly Leu Ser Ile Asp His Val Asn Leu Arg Glu		
770	775	780
Lys Gln Arg Phe Met Ser Gly Glu Lys Leu Val Ala Ile Ile Ser Glu		
785	790	795
Ala Ser Ser Ser Gly Val Ser Leu Gln Ala Asp Arg Arg Val Gln Asn		
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Gln Arg Arg Arg Val His Met Thr Leu Glu Leu Pro Trp Ser Ala Asp		
820	825	830
Arg Ala Ile Gln Gln Phe Gly Arg Thr His Arg Ser Asn Gln Val Ser		
835	840	845
Ala Pro Glu Tyr Val Phe Leu Ile Ser Glu Leu Ala Gly Glu Arg Arg		
850	855	860
Phe Ala Ser Ile Val Ala Lys Arg Leu Glu Ser Leu Gly Ala Leu Thr		
865	870	875
His Gly Asp Arg Arg Ala Thr Glu Ser Arg Asp Leu Ser Lys Tyr Asn		
885	890	895
Phe Glu Asn Lys Tyr Gly Thr Arg Ala Leu His Cys Val Leu Thr Thr		
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Ile Leu Ser Gln Thr Glu Asn Lys Val Pro Val Pro Gln Gly Tyr Pro		
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Gly Gly Val Pro Thr Phe Phe Arg Asp Met Lys Gln Gly Leu Leu Ser		
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Val Gly Ile Gly Gly Arg Glu Ser Arg Asn Gly Cys Leu Asp Val Glu		

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 Lys Asp Cys Ser Ile Thr Lys Phe Leu Asn Arg Ile Leu Gly Leu Glu  
                                  965                      970                      975  
 Val His Lys Gln Asn Ala Leu Phe Gln Tyr Phe Ser Asp Thr Phe Asp  
                                  980                      985                      990  
 His Leu Ile Glu Met Asp Lys Arg Glu Gly Lys Tyr Asp Met Gly Ile  
                                  995                      1000                      1005  
 Leu Asp Leu Ala Pro Gly Ile Glu Glu Ile Tyr Glu Glu Ser Gln Gln  
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 Val Phe Leu Ala Pro Gly His Pro Gln Asp Gly Gln Val Val Phe Tyr  
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 Cys Ser His Ser Ala Trp Asn Arg His Cys Arg Leu Ala Gln Glu Gly  
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 Lys Asp Cys Leu Gln Gly Leu Arg Leu Arg His His Tyr Met Leu Cys  
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 Gly Ala Leu Leu Arg Val Trp Gly Arg Ile Ala Ala Val Met Ala Asp  
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 Arg Lys Lys Gln Val Gly Ile Lys Ile Pro Glu Gly Cys Val Arg Arg  
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&lt;210&gt; 3107

&lt;211&gt; 2102

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3107

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 2102

&lt;210&gt; 3108

&lt;211&gt; 517

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3108

Met	Leu	Gln	Glu	Trp	Leu	Ala	Ala	Val	Gly	Asp	Asp	Tyr	Ala	Ala	Val
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Val	Trp	Arg	Pro	Glu	Gly	Glu	Pro	Arg	Phe	Tyr	Pro	Asp	Glu	Glu	Gly
			20					25					30		
Pro	Lys	His	Trp	Thr	Lys	Glu	Arg	His	Gln	Phe	Leu	Met	Glu	Leu	Lys
		35					40					45			
Gln	Glu	Ala	Leu	Thr	Phe	Ala	Arg	Asn	Trp	Gly	Ala	Asp	Tyr	Ile	Leu
		50				55					60				
Phe	Ala	Asp	Thr	Asp	Asn	Ile	Leu	Thr	Asn	Asn	Gln	Thr	Leu	Arg	Leu
65					70				75					80	
Leu	Met	Gly	Gln	Gly	Leu	Pro	Val	Val	Ala	Pro	Met	Leu	Asp	Ser	Gln
			85					90					95		
Thr	Tyr	Tyr	Ser	Asn	Phe	Trp	Cys	Gly	Ile	Thr	Pro	Gln	Gly	Tyr	Tyr
			100					105					110		
Arg	Arg	Thr	Ala	Glu	Tyr	Phe	Pro	Thr	Lys	Asn	Arg	Gln	Arg	Arg	Gly
		115					120					125			
Cys	Phe	Arg	Val	Pro	Met	Val	His	Ser	Thr	Phe	Leu	Ala	Ser	Leu	Arg
	130					135					140				
Ala	Glu	Gly	Ala	Asp	Gln	Leu	Ala	Phe	Tyr	Pro	Pro	His	Pro	Asn	Tyr
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Thr	Trp	Pro	Phe	Asp	Asp	Ile	Ile	Val	Phe	Ala	Tyr	Ala	Cys	Gln	Ala
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Ala	Gly	Val	Ser	Val	His	Val	Cys	Asn	Glu	His	Arg	Tyr	Gly	Tyr	Met

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Ala Ser Ala His Val Thr Arg Pro Ser Lys Arg Pro Ser Lys Ile Gly
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Glu Arg Met Leu Ala Ser Leu Trp Glu Met Glu Ile Ser Gly Arg Val
      260      265      270
Val Asp Ala Val Asp Gly Trp Met Leu Asn Ser Ser Ala Ile Arg Asn
      275      280      285
Leu Gly Val Asp Leu Leu Pro Gly Tyr Gln Asp Pro Tyr Ser Gly Arg
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Thr Leu Thr Lys Gly Glu Val Gly Cys Phe Leu Ser His Tyr Ser Ile
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Trp Glu Glu Val Val Ala Arg Gly Leu Ala Arg Val Leu Val Phe Glu
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Asp Asp Val Arg Phe Glu Ser Asn Phe Arg Gly Arg Leu Glu Arg Leu
      340      345      350
Met Glu Asp Val Glu Ala Glu Lys Leu Ser Trp Asp Leu Ile Tyr Leu
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Gly Arg Lys Gln Val Asn Pro Glu Lys Glu Thr Ala Val Glu Gly Leu
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      385      390      395      400
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      420      425      430
Pro Asn Glu Gln Tyr Lys Ala His Phe Trp Pro Arg Asp Leu Val Ala
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Phe Ser Ala Gln Pro Leu Leu Ala Ala Pro Thr His Tyr Ala Gly Asp
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Ala Glu Trp Leu Ser Asp Thr Glu Thr Ser Ser Pro Trp Asp Asp Asp
      465      470      475      480
Ser Gly Arg Leu Ile Ser Trp Ser Gly Ser Gln Lys Thr Leu Arg Ser
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Pro Arg Leu Asp Leu Thr Gly Ser Ser Gly His Ser Leu Gln Pro Gln
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Pro Arg Asp Glu Leu
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&lt;210&gt; 3109

&lt;211&gt; 959

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3109

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120

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<210> 3110

<211> 207

<212> PRT

<213> Homo sapiens

<400> 3110

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			20					25					30		
Trp	Ser	Pro	Asp	Gly	Arg	His	Ile	Leu	Asn	Thr	Thr	Glu	Phe	His	Leu
			35				40						45		
Arg	Ile	Thr	Val	Trp	Ser	Leu	Cys	Thr	Lys	Ser	Val	Ser	Tyr	Ile	Lys
	50					55					60				
Tyr	Pro	Lys	Ala	Cys	Leu	Gln	Gly	Ile	Thr	Phe	Thr	Arg	Asp	Gly	Arg
65				70					75					80	
Tyr	Met	Ala	Leu	Ala	Glu	Arg	Arg	Asp	Cys	Lys	Asp	Tyr	Val	Ser	Ile
			85					90						95	
Phe	Val	Cys	Ser	Asp	Trp	Gln	Leu	Leu	Arg	His	Phe	Asp	Thr	Asp	Thr
			100				105						110		
Gln	Asp	Leu	Thr	Gly	Ile	Glu	Trp	Ala	Pro	Asn	Gly	Cys	Val	Leu	Ala
	115						120					125			
Val	Trp	Asp	Thr	Cys	Leu	Glu	Tyr	Lys	Ile	Leu	Leu	Tyr	Ser	Leu	Asp
	130					135					140				
Gly	Arg	Leu	Leu	Ser	Thr	Tyr	Ser	Ala	Xaa	Arg	Val	Val	Xaa	Leu	Gly

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                                  165                      170                      175  
 Ser Tyr Asp Gly Lys Val Arg Ile Leu Asn His Val Thr Trp Lys Met  
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 Ile Thr Glu Phe Gly His Pro Cys Ser Pro Ile Asn Asp Ser Gln  
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<210> 3111

<211> 1269

<212> DNA

<213> Homo sapiens

<400> 3111

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<210> 3112

<211> 151

<212> PRT

<213> Homo sapiens

<400> 3112

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 35 40 45  
 Arg Asp Trp Glu Glu Arg Arg Gly Val Thr Thr Val Gln His Pro Glu  
 50 55 60  
 Lys Ser Asp Trp Gln Thr Arg Thr Gly Gln Pro Cys Ser Cys Met Ile  
 65 70 75 80  
 Gln Glu Leu Ala Ser Glu Arg Glu Ser Val Ala Glu Ala Gly Gly Ser  
 85 90 95  
 Ala Arg Gln Lys Val Arg Gly Leu Val Leu Arg Arg Gly Lys Arg Gln  
 100 105 110  
 Ser Glu Ser Leu His Ala Pro Gly Leu His Gly Arg Ala Arg Ala Ser  
 115 120 125  
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<210> 3113

<211> 631

<212> DNA

<213> Homo sapiens

<400> 3113

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<210> 3114  
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 <212> PRT  
 <213> Homo sapiens

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 35 40 45  
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 50 55 60  
 Arg Asn Leu Gln Lys Tyr Val Ser Arg Thr Ser Val Val Phe Val Ser  
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 115 120 125  
 Arg Thr Ile Lys Lys Gly Asp Lys Glu Thr Glu Ser Asp Phe Asp Asn  
 130 135 140  
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 145 150 155 160  
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 165 170 175  
 Leu Asp His Arg Thr Cys Pro Met Cys Lys Met Asn Ile Leu Lys Ala  
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<210> 3115  
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 <212> DNA  
 <213> Homo sapiens

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&lt;210&gt; 3116

&lt;211&gt; 191

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3116

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			20					25				30			
Leu	Leu	Tyr	Ser	Ser	Gly	Leu	Val	Glu	Cys	Glu	Asp	Gln	Asp	Pro	Leu
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65              70              75              80
Val Gly Cys Asp Leu Lys Asn Cys Asn Lys Asn Tyr His Phe Phe Cys
      85              90              95
Ala Lys Lys Asp Asp Ala Val Pro Gln Ser Asp Gly Val Arg Gly Ile
      100              105              110
Tyr Lys Leu Leu Cys Gln Gln His Ala Gln Phe Pro Ile Ile Ala Gln
      115              120              125
Ser Gly Lys Phe Ser Gly Val Lys Arg Lys Arg Gly Arg Lys Lys Pro
      130              135              140
Leu Ser Gly Asn His Val Gln Pro Pro Glu Thr Met Lys Cys Asn Thr
145              150              155              160
Phe Ile Arg Gln Val Lys Glu Glu His Gly Arg His Thr Asp Ala Thr
      165              170              175
Val Lys Val Pro Phe Leu Lys Lys Cys Lys Xaa Ser Arg Thr Ser
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&lt;210&gt; 3117

&lt;211&gt; 1373

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3117

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 1260  
 tctactaaaa atataaaaa ttagccaggc gtggtggtgg gcacctgtag tcccagcaac  
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 1373

<210> 3118

<211> 312

<212> PRT

<213> Homo sapiens

<400> 3118

Val	Thr	Leu	Ser	Pro	Lys	Asp	Cys	Gln	Val	Phe	Arg	Ser	Asp	His	Gly
1				5					10					15	
Ser	Ser	Ile	Ser	Cys	Gln	Pro	Pro	Ala	Glu	Ile	Pro	Gly	Tyr	Leu	Pro
			20					25					30		
Ala	Asp	Thr	Val	His	Leu	Ala	Val	Glu	Phe	Phe	Asn	Leu	Thr	His	Leu
		35					40					45			
Pro	Ala	Asn	Leu	Leu	Gln	Gly	Ala	Ser	Lys	Leu	Gln	Glu	Leu	His	Leu
		50				55					60				
Ser	Ser	Asn	Gly	Leu	Glu	Ser	Leu	Ser	Pro	Glu	Phe	Leu	Arg	Pro	Val
65					70				75					80	
Pro	Gln	Leu	Arg	Val	Leu	Asp	Leu	Thr	Arg	Asn	Ala	Leu	Thr	Gly	Leu
			85					90						95	
Pro	Pro	Gly	Leu	Phe	Gln	Ala	Ser	Ala	Thr	Leu	Asp	Thr	Leu	Val	Leu
			100					105					110		
Lys	Glu	Asn	Gln	Leu	Glu	Val	Leu	Glu	Val	Ser	Trp	Leu	His	Gly	Leu
		115					120					125			
Lys	Ala	Leu	Gly	His	Leu	Asp	Leu	Ser	Gly	Asn	Arg	Leu	Arg	Lys	Leu
		130				135					140				
Pro	Pro	Gly	Leu	Leu	Ala	Asn	Phe	Thr	Leu	Leu	Arg	Thr	Leu	Asp	Leu
145					150				155					160	
Gly	Glu	Asn	Gln	Leu	Glu	Thr	Leu	Pro	Pro	Asp	Leu	Leu	Arg	Gly	Pro
			165					170						175	
Leu	Gln	Leu	Glu	Arg	Leu	His	Leu	Glu	Gly	Asn	Lys	Leu	Gln	Val	Leu
		180					185						190		
Gly	Lys	Asp	Leu	Leu	Leu	Pro	Gln	Pro	Asp	Leu	Arg	Tyr	Leu	Phe	Leu
		195				200						205			
Ser	Gly	Asn	Lys	Leu	Ala	Arg	Val	Ala	Ala	Gly	Ala	Phe	Gln	Gly	Leu
		210				215					220				
Arg	Gln	Leu	Asp	Met	Leu	Asp	Leu	Ser	Asn	Asn	Ser	Leu	Ala	Ser	Val
225					230				235					240	
Pro	Glu	Gly	Leu	Trp	Ala	Ser	Leu	Gly	Gln	Pro	Asn	Trp	Asp	Met	Arg

	245		250		255
Asp Gly Phe	Asp Ile Ser Gly Asn Pro Trp Ile Cys Asp Gln Asn Leu				
	260		265		270
Ser Asp Leu Tyr Arg Trp Leu Gln Ala Gln Lys Asp Lys Met Phe Ser					
	275		280		285
Gln Asn Asp Thr Arg Cys Ala Gly Pro Glu Ala Val Lys Gly Gln Thr					
	290		295		300
Leu Leu Ala Val Ala Lys Ser Gln					
305		310			

&lt;210&gt; 3119

&lt;211&gt; 427

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3119

```

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tcagcagagc gagccctagc tgctgctcag cgttgccata agaagtgat gaaggagcgc
120
tacgtggagg tgggtcccctg ttccacagag gagatgagcc gaggctgat ggggggcacc
180
ttgggccgca gtggcatgtc cctccacccc tgcaagctgc cctgcctctc accacctacc
240
tacaccacct tccaagccac cccaacgtc attcccacgg agacggcagc tctatacccc
300
tcttcagcac tgctcccagc tgccagggtg cctgctgccc ccacctctgt tgctactat
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420
aacgcgt
427

```

&lt;210&gt; 3120

&lt;211&gt; 142

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3120

Val His Met Val Leu Asn Gln Gln Gly Arg Pro Ser Gly Asp Ala Phe														
1		5					10					15		
Ile Gln Met Thr Ser Ala Glu Arg Ala Leu Ala Ala Ala Gln Arg Cys														
	20					25					30			
His Lys Lys Val Met Lys Glu Arg Tyr Val Glu Val Val Pro Cys Ser														
	35				40				45					
Thr Glu Glu Met Ser Arg Val Leu Met Gly Gly Thr Leu Gly Arg Ser														
	50				55				60					
Gly Met Ser Pro Pro Pro Cys Lys Leu Pro Cys Leu Ser Pro Pro Thr														
	65			70				75				80		
Tyr Thr Thr Phe Gln Ala Thr Pro Thr Leu Ile Pro Thr Glu Thr Ala														
		85					90				95			
Ala Leu Tyr Pro Ser Ser Ala Leu Leu Pro Ala Ala Arg Val Pro Ala														
	100					105					110			
Ala Pro Thr Pro Val Ala Tyr Tyr Pro Gly Pro Ala Thr Gln Leu Tyr														

115                      120                      125  
 Leu Asn Tyr Thr Ala Tyr Tyr Pro Ser Pro Glu Asp Asn Ala  
 130                      135                      140

<210> 3121

<211> 284

<212> DNA

<213> Homo sapiens

<400> 3121

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 120  
 taagaggaac atgaacctgg acggggcagc ttccattgtc cctctcctgc tcctgctaata  
 180  
 gaacaaggcc tccccagagt atgaagagaa catgcacaga taccagaagg cagccaagct  
 240  
 cttccgggga agattctctt tattctgggtg gacagtggta tgaa  
 284

<210> 3122

<211> 91

<212> PRT

<213> Homo sapiens

<400> 3122

Met Ala Ala Gly Thr Ser Val Ser His Val Gly Ser Trp Ala Ala Pro  
 1                      5                      10                      15  
 Gly Pro Ser Glu Asp Phe Ser Thr Ser Ala Ala Thr Ser Ala Ala Ser  
 20                      25                      30  
 Ser His Val Arg Arg Asn Lys Arg Asn Met Asn Leu Asp Gly Ala Ala  
 35                      40                      45  
 Ser Ile Val Pro Leu Leu Leu Leu Met Asn Lys Ala Ser Pro Glu  
 50                      55                      60  
 Tyr Glu Glu Asn Met His Arg Tyr Gln Lys Ala Ala Lys Leu Phe Arg  
 65                      70                      75                      80  
 Gly Arg Phe Ser Leu Phe Trp Trp Thr Val Val  
 85                      90

<210> 3123

<211> 344

<212> DNA

<213> Homo sapiens

<400> 3123

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 gagattatga ggagccgcca agagatgaaa aaccgatca gtaacaagaa gaggaagaaa  
 120  
 gcagcccagg tgaccttcag aaagacattg gagaaggaag caaagggaga ggagcccagc  
 180  
 atcgcagtcc ccaagttcaa acagaggaag ggggagtccg acggggccta tatccaccgc  
 240

atgcagcaag aggccagca tgtgctgttc ctcagcaaga accaggccat ccggcagcca  
 300  
 gaggtgcagg cagctcccaa ggagaagtct gagcagaaaa aagc  
 344

<210> 3124  
 <211> 92  
 <212> PRT  
 <213> Homo sapiens

<400> 3124  
 Met Arg Ser Arg Gln Glu Met Lys Asn Pro Ile Ser Asn Lys Lys Arg  
 1 5 10 15  
 Lys Lys Ala Ala Gln Val Thr Phe Arg Lys Thr Leu Glu Lys Glu Ala  
 20 25 30  
 Lys Gly Glu Glu Pro Asp Ile Ala Val Pro Lys Phe Lys Gln Arg Lys  
 35 40 45  
 Gly Glu Ser Asp Gly Ala Tyr Ile His Arg Met Gln Gln Glu Ala Gln  
 50 55 60  
 His Val Leu Phe Leu Ser Lys Asn Gln Ala Ile Arg Gln Pro Glu Val  
 65 70 75 80  
 Gln Ala Ala Pro Lys Glu Lys Ser Glu Gln Lys Lys  
 85 90

<210> 3125  
 <211> 647  
 <212> DNA  
 <213> Homo sapiens

<400> 3125  
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 acattaggaa ggtgctgagg aaagccatta agcatccaca gctccactgc ctaggcagat  
 120  
 ggtcagcagg cagtttagtt gtgggagtat ttccaatttg catgaatgaa acatggacaa  
 180  
 ataagataag gctggctcca gggaagtaat tccccagtt cccctgagcc ttggatctgg  
 240  
 aaaactgcag cccatcctgg aattagggaa catcacaaaa cgtactgggg agaactcccc  
 300  
 atgtggcctc ggcccacgcc agaagccggg caaggtccca agtgccggct cgcccacaag  
 360  
 ctatggctaa gacagaaaaa caaaggaaaa aaagtcctcc ccaaacacac acataagcaa  
 420  
 aaccatctt cctgtgttct ctgccaagag agctggagca aaagagatga gtttgagact  
 480  
 ctgattcatc catcaagaca aataaactca gtctatggag gttagcaggg caatttgtga  
 540  
 agcaaacaaa agttgagttt tggaaagggg ctctgaagaa aatgaagatg acataaccagg  
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 647

<210> 3126

&lt;211&gt; 116

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3126

```

Met Lys Leu Asn Ser Trp Tyr Val Ile Phe Ile Phe Phe Arg Ala Pro
 1             5             10            15
Phe Gln Asn Ser Thr Phe Val Cys Phe Thr Asn Cys Pro Ala Asn Leu
             20             25            30
His Arg Leu Ser Leu Phe Val Leu Met Asp Glu Ser Glu Ser Gln Thr
             35             40            45
His Leu Phe Cys Ser Ser Ser Leu Gly Arg Glu His Arg Lys Met Gly
             50             55            60
Phe Ala Tyr Val Cys Val Trp Gly Gly Leu Phe Phe Leu Cys Phe Ser
65             70             75            80
Val Leu Ala Ile Ala Cys Gly Arg Ala Gly Thr Trp Asp Leu Ala Arg
             85             90            95
Leu Leu Ala Trp Ala Glu Ala Thr Trp Gly Val Leu Pro Ser Thr Phe
             100            105           110
Cys Asp Val Pro
             115

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&lt;210&gt; 3127

&lt;211&gt; 2218

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3127

```

ncagaagtta gccaaagatga acttaatgaa atcaatcagt tcttgggacc cgtggaaaaa
60
ttcttctactg aagaggtgga ctcccgaaaa attgaccagg aagggaataat cccagatgaa
120
actttggaga aattgaagag cctagggctt tttgggctgc aagtcccaga agaatatggt
180
ggcctgggct tctccaacac catgtactca agactagggg agatcatcag catggatggg
240
tccatcactg tgaccctggc agcgcaccag gctattggcc tcaaggggat catcttggct
300
ggcactgagg agcagaaagc caaatacttg cctaaactgg cgtccgggga gcacatagca
360
gccttctgcc tcacggagcc agccagtggg agcgatgcag cctcaatccg gagcagagcc
420
acactaagtg aagacaagaa gcactacatc ctcaatggct ccaaggtctg gattactaat
480
ggaggactgg ccaatatttt tactgtgttt gcaaagactg aggtcgttga ttctgatgga
540
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660
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720
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780

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agattgattg aaatgactgc tgagtacgcc tgcacaagga aacagttaa caagaggctc  
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900  
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1560  
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1620  
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1680  
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1740  
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1980  
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2100  
agctctgtct gggtcattca tttaaactag aagcagaggc acttaaaaca tgtaccagga  
2160  
accatttaac aaagaatata aaatgtcaca atctgtgtac tgttaaaaaa aaaaaaaa  
2218

&lt;210&gt; 3128

&lt;211&gt; 565

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3128

```

Xaa Glu Val Ser Gln Asp Glu Leu Asn Glu Ile Asn Gln Phe Leu Gly
 1           5           10           15
Pro Val Glu Lys Phe Phe Thr Glu Glu Val Asp Ser Arg Lys Ile Asp
      20           25           30
Gln Glu Gly Lys Ile Pro Asp Glu Thr Leu Glu Lys Leu Lys Ser Leu
      35           40           45
Gly Leu Phe Gly Leu Gln Val Pro Glu Glu Tyr Gly Gly Leu Gly Phe
      50           55           60
Ser Asn Thr Met Tyr Ser Arg Leu Gly Glu Ile Ile Ser Met Asp Gly
65           70           75           80
Ser Ile Thr Val Thr Leu Ala Ala His Gln Ala Ile Gly Leu Lys Gly
      85           90           95
Ile Ile Leu Ala Gly Thr Glu Glu Gln Lys Ala Lys Tyr Leu Pro Lys
      100          105          110
Leu Ala Ser Gly Glu His Ile Ala Ala Phe Cys Leu Thr Glu Pro Ala
      115          120          125
Ser Gly Ser Asp Ala Ala Ser Ile Arg Ser Arg Ala Thr Leu Ser Glu
      130          135          140
Asp Lys Lys His Tyr Ile Leu Asn Gly Ser Lys Val Trp Ile Thr Asn
145          150          155          160
Gly Gly Leu Ala Asn Ile Phe Thr Val Phe Ala Lys Thr Glu Val Val
      165          170          175
Asp Ser Asp Gly Ser Val Lys Asp Lys Ile Thr Ala Phe Ile Val Glu
      180          185          190
Arg Asp Phe Gly Gly Val Thr Asn Gly Lys Pro Glu Asp Lys Leu Gly
      195          200          205
Ile Arg Gly Ser Asn Thr Cys Glu Val His Phe Glu Asn Thr Lys Ile
      210          215          220
Pro Val Glu Asn Ile Leu Gly Glu Val Gly Asp Gly Phe Lys Val Ala
225          230          235          240
Met Asn Ile Leu Asn Ser Gly Arg Phe Ser Met Gly Ser Val Val Ala
      245          250          255
Gly Leu Leu Lys Arg Leu Ile Glu Met Thr Ala Glu Tyr Ala Cys Thr
      260          265          270
Arg Lys Gln Phe Asn Lys Arg Leu Ser Glu Phe Gly Leu Ile Gln Glu
      275          280          285
Lys Phe Ala Leu Met Ala Gln Lys Ala Tyr Val Met Glu Ser Met Thr
      290          295          300
Tyr Leu Thr Ala Gly Met Leu Asp Gln Pro Gly Phe Pro Asp Cys Ser
305          310          315          320
Ile Glu Ala Ala Met Val Lys Val Phe Ser Ser Glu Ala Ala Trp Gln
      325          330          335
Cys Val Ser Glu Ala Leu Gln Ile Leu Gly Gly Leu Gly Tyr Thr Arg
      340          345          350
Asp Tyr Pro Tyr Glu Arg Ile Leu Arg Asp Thr Arg Ile Leu Leu Ile
      355          360          365
Phe Glu Gly Thr Asn Glu Ile Leu Arg Met Tyr Ile Ala Leu Thr Gly
      370          375          380
Leu Gln His Ala Gly Arg Ile Leu Thr Thr Arg Ile His Glu Leu Lys
385          390          395          400
Gln Ala Lys Val Ser Thr Val Met Asp Thr Val Gly Arg Arg Leu Arg
      405          410          415
Asp Ser Leu Gly Arg Thr Val Asp Leu Gly Leu Thr Gly Asn His Gly

```

420 425 430  
 Val Val His Pro Ser Leu Ala Asp Ser Ala Asn Lys Phe Glu Glu Asn  
 435 440 445  
 Thr Tyr Cys Phe Gly Arg Thr Val Glu Thr Leu Leu Leu Arg Phe Gly  
 450 455 460  
 Lys Thr Ile Met Glu Glu Gln Leu Val Leu Lys Arg Val Ala Asn Ile  
 465 470 475 480  
 Leu Ile Asn Leu Tyr Gly Met Thr Ala Val Leu Ser Arg Ala Ser Arg  
 485 490 495  
 Ser Ile Arg Ile Gly Leu Arg Asn His Asp His Glu Val Leu Leu Ala  
 500 505 510  
 Asn Thr Phe Cys Val Glu Ala Tyr Leu Gln Asn Leu Phe Ser Leu Ser  
 515 520 525  
 Gln Leu Asp Lys Tyr Ala Pro Glu Asn Leu Asp Glu Gln Ile Lys Lys  
 530 535 540  
 Val Ser Gln Gln Ile Leu Glu Lys Arg Ala Tyr Ile Cys Ala His Pro  
 545 550 555 560  
 Leu Asp Arg Thr Cys  
 565

&lt;210&gt; 3129

&lt;211&gt; 1964

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3129

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 atagggagtt ggagatgcta accaagcatg gagttttcac atggtctatt tctgctgagt  
 120  
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 180  
 aaaccatcct ttggtttttg atcctgagtc agagacggac atgtgcttat gaaagaaggt  
 240  
 agagtttcaa cccttaggta accttaaaag agcaggaact atgtgtgtgtg taagtcatgt  
 300  
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 360  
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 420  
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 480  
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 660  
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 780  
 atccatcaca aaagttttgc acatgctcta cggaaacttc tgctgtgggc agtgtatccc  
 840



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 1080  
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 1140  
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 1800  
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 1860  
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 1920  
 cccaagggtg aactctgact tctccttggg actacatatg gcca  
 1964

&lt;210&gt; 3130

&lt;211&gt; 273

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3130

Met	Glu	Ala	Ala	Pro	Ser	Arg	Phe	Met	Phe	Leu	Leu	Phe	Leu	Leu	Thr
1				5				10					15		
Cys	Glu	Leu	Ala	Ala	Glu	Val	Ala	Ala	Glu	Val	Glu	Lys	Ser	Ser	Asp
			20				25					30			
Gly	Pro	Gly	Ala	Ala	Gln	Glu	Pro	Thr	Trp	Leu	Thr	Asp	Val	Pro	Ala
		35				40					45				
Ala	Met	Glu	Phe	Ile	Ala	Ala	Thr	Glu	Val	Ala	Val	Ile	Gly	Phe	Phe
	50				55					60					
Gln	Asp	Leu	Glu	Ile	Pro	Ala	Val	Pro	Ile	Leu	His	Ser	Met	Val	Gln

```

65          70          75          80
Lys Phe Pro Gly Val Ser Phe Gly Ile Ser Thr Asp Ser Glu Val Leu
      85          90          95
Thr His Tyr Asn Ile Thr Gly Asn Thr Ile Cys Leu Phe Arg Leu Val
      100         105         110
Asp Asn Glu Gln Leu Asn Leu Glu Asp Glu Asp Ile Glu Ser Ile Asp
      115         120         125
Ala Thr Lys Leu Ser Arg Phe Ile Glu Ile Asn Ser Leu His Met Val
      130         135         140
Thr Glu Tyr Asn Pro Val Thr Val Ile Gly Leu Phe Asn Ser Val Ile
      145         150         155         160
Gln Ile His Leu Leu Leu Ile Met Asn Lys Ala Ser Pro Glu Tyr Glu
      165         170         175
Glu Asn Met His Arg Tyr Gln Lys Ala Ala Lys Leu Phe Gln Gly Lys
      180         185         190
Ile Leu Phe Ile Leu Val Asp Ser Gly Met Lys Glu Asn Gly Lys Val
      195         200         205
Ile Ser Phe Phe Lys Leu Lys Glu Ser Gln Leu Pro Ala Leu Ala Ile
      210         215         220
Tyr Gln Thr Leu Asp Asp Glu Trp Asp Thr Leu Pro Thr Ala Glu Val
      225         230         235         240
Ser Val Glu His Val Gln Asn Phe Cys Asp Gly Phe Leu Ser Gly Lys
      245         250         255
Leu Leu Lys Glu Asn Arg Glu Ser Lys Arg Lys Thr Pro Lys Val Glu
      260         265         270
Leu

```

&lt;210&gt; 3131

&lt;211&gt; 1544

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3131

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<210> 3132

<211> 283

<212> PRT

<213> Homo sapiens

<400> 3132

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Trp Asn His Asp Ser Thr His Val Ile Arg Phe Pro Leu Asn Gly Tyr		
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Cys His Leu Asn Ser Val Gln Val Leu Glu Arg Leu Gln Gln Arg Gly		
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Phe Glu Ile Val Gly Ser Cys Gly Gly Gly Val Asp Ser Ser Gln Phe		
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&lt;210&gt; 3133

&lt;211&gt; 621

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3133

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&lt;210&gt; 3134

&lt;211&gt; 51

&lt;212&gt; PRT

<213> Homo sapiens

<400> 3134

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Thr	Glu	Val	Lys	Ser	Glu	Glu	Gly	Pro	Gly	Trp	Thr	Ile	Leu	Arg	Asp
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<210> 3135

<211> 3166

<212> DNA

<213> Homo sapiens

<400> 3135

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<211> 278

<212> PRT

<213> Homo sapiens

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Ser	Pro	Leu	Ser	Val	Met	Ser	Ala	Ser	Gln	Ala	Leu	Gln	Thr	Val	Ala
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Leu	Ser	Ala	Ala	His	Gly	Ser	Ser	Ser	Glu	Pro	Asn	Leu	Ala	Leu	Lys
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Ser	Asp	Phe	Ala	His	Leu	Ile	Pro	Leu	Thr	Met	Leu	Tyr	Pro	Lys	Asn
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&lt;210&gt; 3138

&lt;211&gt; 977

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3138

Leu Ala Asp Ser Ser Pro Ser Asn Leu Gln Ile Ile Ile Lys Glu Leu

1

5

10

15

Leu Ser Met His His Gln Pro Asp Pro Ala Leu Thr Lys Glu Phe Asp

2356

450					455					460					
Phe	Val	Glu	Lys	Met	Pro	Ala	Arg	Ile	Tyr	Gln	Met	Val	Arg	Asp	Glu
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Asn	Leu	Lys	Phe	Met	Lys	Asn	Arg	Asp	Val	Tyr	Ser	Ser	Asp	Tyr	Phe
				485					490						495
Ser	Phe	Val	Leu	Ser	Leu	Ala	Ser	Leu	Asn	Ala	Thr	Lys	Leu	Lys	His
			500					505					510		
Pro	Tyr	Tyr	Pro	Cys	Met	Ala	Lys	Val	Ser	Leu	Gln	Leu	Ala	Ile	Gln
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Phe	Leu	Phe	Gln	Thr	Tyr	Leu	Arg	Thr	Lys	Lys	Lys	Leu	Arg	Val	Asp
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Thr	Glu	Glu	Trp	Ile	Ala	Thr	Ile	Glu	Ala	Leu	Leu	Ser	Lys	Ser	Phe
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Asp	Ala	Cys	Gln	Trp	Leu	Val	Glu	Tyr	Phe	Ile	Ser	Ser	Glu	Gly	Arg
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Glu	Leu	Ile	Lys	Ile	Phe	Leu	Leu	Glu	Cys	Asn	Val	Arg	Glu	Val	Arg
		580						585					590		
Val	Ala	Val	Ala	Thr	Ile	Leu	Glu	Lys	Thr	Leu	Asp	Ser	Ala	Leu	Phe
		595					600					605			
Tyr	Gln	Asp	Lys	Leu	Lys	Ser	Leu	His	Gln	Leu	Leu	Glu	Val	Leu	Leu
	610					615					620				
Ala	Leu	Leu	Asp	Lys	Asp	Val	Pro	Glu	Asn	Cys	Lys	Asn	Cys	Ala	Gln
625					630					635					640
Tyr	Phe	Phe	Leu	Phe	Asn	Thr	Phe	Val	Gln	Lys	Gln	Gly	Ile	Arg	Ala
			645						650					655	
Gly	Asp	Leu	Leu	Leu	Arg	His	Ser	Ala	Leu	Arg	His	Met	Ile	Ser	Phe
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Ala	Gln	Ala	Arg	Glu	Phe	Gly	Asn	Leu	His	Asn	Thr	Val	Ala	Leu	Leu
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705					710					715					720
Phe	Lys	Gln	Arg	Pro	Pro	Ile	Ser	Ile	Ala	Pro	Ser	Ser	Pro	Leu	Leu
			725						730					735	
Pro	Leu	His	Glu	Glu	Val	Glu	Ala	Leu	Leu	Phe	Met	Ser	Glu	Gly	Lys
		740						745					750		
Pro	Tyr	Leu	Leu	Glu	Val	Met	Phe	Ala	Leu	Arg	Glu	Leu	Thr	Gly	Ser
		755					760						765		
Leu	Leu	Ala	Leu	Ile	Glu	Met	Val	Val	Tyr	Cys	Cys	Phe	Cys	Asn	Glu
		770				775					780				
His	Phe	Ser	Phe	Thr	Met	Leu	His	Phe	Ile	Lys	Asn	Gln	Leu	Glu	Thr
785					790					795					800
Ala	Pro	Pro	His	Glu	Leu	Lys	Asn	Thr	Phe	Gln	Leu	Leu	His	Glu	Ile
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<400> 3140
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Leu Asn Lys Ser Ser Asn Trp Gly Thr Ser Pro Leu Leu Trp Tyr Phe
      35             40             45
Tyr Ser Ala Leu Pro Arg Gly Leu Gly Cys Ser Leu Leu Phe Ile Pro
      50             55             60
Leu Gly Leu Val Asp Arg Arg Thr His Ala Pro Thr Val Leu Ala Leu

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65				70					75					80
Gly	Phe	Met	Ala	Leu	Tyr	Ser	Leu	Leu	Pro	His	Lys	Glu	Leu	Arg Phe
				85					90					95
Ile	Ile	Tyr	Ala	Phe	Pro	Met	Leu	Asn	Ile	Thr	Ala	Ala	Arg	Gly Cys
			100					105					110	
Ser	Tyr	Leu												
		115												

&lt;210&gt; 3141

&lt;211&gt; 1815

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3141

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<210> 3142

<211> 451

<212> PRT

<213> Homo sapiens

<400> 3142

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		20					25					30			
Pro	Glu	Gly	Ile	Val	Glu	Glu	Phe	Ala	Thr	Glu	Gly	Thr	Asp	Arg	Lys
		35					40					45			
Asp	Val	Phe	Phe	Tyr	Gln	Ala	Asp	Asp	Glu	His	Tyr	Ile	Pro	Arg	Ala
		50				55					60				
Val	Leu	Leu	Asp	Leu	Glu	Pro	Arg	Val	Ile	His	Ser	Ile	Leu	Asn	Ser
65			70						75					80	
Pro	Tyr	Ala	Lys	Leu	Tyr	Asn	Pro	Glu	Asn	Ile	Tyr	Leu	Ser	Glu	His
			85					90					95		
Gly	Gly	Gly	Ala	Gly	Asn	Asn	Trp	Ala	Ser	Gly	Phe	Ser	Gln	Gly	Glu
			100					105					110		
Lys	Ile	His	Glu	Asp	Ile	Phe	Asp	Ile	Ile	Asp	Arg	Glu	Ala	Asp	Gly
		115				120					125				
Ser	Asp	Ser	Leu	Glu	Gly	Phe	Val	Leu	Cys	His	Ser	Ile	Ala	Gly	Gly
		130				135					140				
Thr	Gly	Ser	Gly	Leu	Gly	Ser	Tyr	Leu	Leu	Glu	Arg	Leu	Asn	Asp	Arg
145				150						155				160	
Tyr	Pro	Lys	Lys	Leu	Val	Gln	Thr	Tyr	Ser	Val	Phe	Pro	Asn	Gln	Asp
			165					170					175		
Glu	Met	Ser	Asp	Val	Val	Val	Gln	Pro	Tyr	Asn	Ser	Leu	Leu	Thr	Leu
			180					185					190		
Lys	Arg	Leu	Thr	Gln	Asn	Ala	Asp	Cys	Val	Val	Val	Leu	Asp	Asn	Thr



195	200	205
Ala Leu Asn Arg Ile Ala Thr Asp Arg Leu His Ile Gln Asn Pro Ser		
210	215	220
Phe Ser Gln Ile Asn Gln Leu Val Ser Thr Ile Met Ser Ala Ser Thr		
225	230	235
Thr Thr Leu Arg Tyr Pro Gly Tyr Met Asn Asn Asp Leu Ile Gly Leu		240
245	250	255
Ile Ala Ser Leu Ile Pro Thr Pro Arg Leu His Phe Leu Met Thr Gly		
260	265	270
Tyr Thr Pro Leu Thr Thr Asp Gln Ser Val Ala Ser Val Arg Lys Thr		
275	280	285
Thr Val Leu Asp Val Met Arg Arg Leu Leu Gln Pro Lys Asn Val Met		
290	295	300
Val Ser Thr Gly Arg Asp Arg Gln Thr Asn His Cys Tyr Ile Ala Ile		
305	310	315
Leu Asn Ile Ile Gln Gly Glu Val Asp Pro Thr Gln Val His Lys Ser		320
325	330	335
Leu Gln Arg Ile Arg Glu Arg Lys Leu Ala Asn Phe Ile Pro Trp Gly		
340	345	350
Pro Ala Ser Ile Gln Val Ala Leu Ser Arg Lys Ser Pro Tyr Leu Pro		
355	360	365
Ser Ala His Arg Val Ser Gly Leu Met Met Ala Asn His Thr Ser Ile		
370	375	380
Ser Ser Leu Phe Glu Arg Thr Cys Arg Gln Tyr Asp Lys Leu Arg Lys		
385	390	395
Arg Glu Ala Phe Leu Glu Gln Phe Arg Lys Glu Asp Met Phe Lys Asp		400
405	410	415
Asn Phe Asp Glu Met Asp Thr Ser Arg Glu Ile Val Gln Gln Leu Ile		
420	425	430
Asp Glu Tyr His Ala Ala Thr Arg Pro Asp Tyr Ile Ser Trp Gly Thr		
435	440	445
Gln Glu Gln		
450		

&lt;210&gt; 3143

&lt;211&gt; 356

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3143

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&lt;210&gt; 3144

<211> 81  
 <212> PRT  
 <213> Homo sapiens

<400> 3144  
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 20 25 30  
 Ala Trp Leu Thr Val Lys His Pro His Thr Val Asp Gln Gln Pro Pro  
 35 40 45  
 Leu Pro Thr Ser Gln Glu Leu Arg Pro Ala Ala Gln Pro Lys Gln Gln  
 50 55 60  
 Pro His His Ser Gln Thr Pro Pro Gln Arg Val Cys Leu Arg Ala Pro  
 65 70 75 80  
 Ser

<210> 3145  
 <211> 436  
 <212> DNA  
 <213> Homo sapiens

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 120  
 ctccgaggag cccgctccac ctgccctcag gaggggtgtt aaaacggagg ttgccaccgt  
 180  
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 436

<210> 3146  
 <211> 131  
 <212> PRT  
 <213> Homo sapiens

<400> 3146  
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 Pro Ile Thr Ser Cys Ser Gly Gly Pro Ser Arg Thr Gly Gly Gln  
 20 25 30  
 Thr Pro Arg Ser Pro Leu His Leu Pro Ser Gly Gly Cys Leu Lys Arg  
 35 40 45  
 Arg Leu Pro Pro Phe Thr His Leu Pro Ser Val Pro Gly Pro Pro Ser

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      50              55              60
Leu Val Cys Gln Thr Leu Gln Pro Pro Ala Ser Gly His Ser Ala Arg
65              70              75              80
Gln Met Thr Ser Gly Gly Glu Pro His Ile Ser Thr Gly Ser Arg Arg
      85              90              95
Pro Arg Lys Leu Pro Trp Pro Ala His Pro Arg Cys Ser Ala Cys Pro
      100              105              110
Pro Asn Val Val Ser Ser Arg Arg Arg Leu Thr Pro Arg Arg Gly Trp
      115              120              125
Gly Thr Ser
      130

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&lt;210&gt; 3147

&lt;211&gt; 3106

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3147

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<210> 3148

<211> 444

<212> PRT

<213> Homo sapiens

<400> 3148

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			20					25					30		
Thr	Asp	Arg	Trp	Leu	Val	Ile	Asp	Arg	Lys	Val	Tyr	Asn	Ile	Thr	Lys
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Trp	Ser	Ile	Gln	His	Pro	Gly	Gly	Gln	Arg	Val	Ile	Gly	His	Tyr	Ala
	50					55					60				
Gly	Glu	Asp	Ala	Thr	Asp	Ala	Phe	Arg	Ala	Phe	His	Pro	Asp	Leu	Glu
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Phe	Val	Gly	Lys	Phe	Leu	Lys	Pro	Leu	Leu	Ile	Gly	Glu	Leu	Ala	Pro
			85						90					95	
Glu	Glu	Pro	Ser	Gln	Asp	His	Gly	Lys	Asn	Ser	Lys	Ile	Thr	Glu	Asp
			100					105					110		
Phe	Arg	Ala	Leu	Arg	Lys	Thr	Ala	Glu	Asp	Met	Asn	Leu	Phe	Lys	Thr
		115					120					125			
Asn	His	Val	Phe	Phe	Leu	Leu	Leu	Leu	Ala	His	Ile	Ile	Ala	Leu	Glu
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Ser	Ile	Ala	Trp	Phe	Thr	Val	Phe	Tyr	Phe	Gly	Asn	Gly	Trp	Ile	Pro
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Trp	Leu	Gln	His	Asp	Tyr	Gly	His	Leu	Ser	Val	Tyr	Arg	Lys	Pro	Lys
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Trp	Asn	His	Leu	Val	His	Lys	Phe	Val	Ile	Gly	His	Leu	Lys	Gly	Ala
		195					200					205			
Ser	Ala	Asn	Trp	Trp	Asn	His	Arg	His	Phe	Gln	His	His	Ala	Lys	Pro
	210					215					220				
Asn	Ile	Phe	His	Lys	Asp	Pro	Asp	Val	Asn	Met	Leu	His	Val	Phe	Val
225				230					235					240	
Leu	Gly	Glu	Trp	Gln	Pro	Ile	Glu	Tyr	Gly	Lys	Lys	Lys	Leu	Lys	Tyr
			245					250					255		
Leu	Pro	Tyr	Asn	His	Gln	His	Glu	Tyr	Phe	Phe	Leu	Ile	Gly	Pro	Pro

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      260      265      270
Leu Leu Ile Pro Met Tyr Phe Gln Tyr Gln Ile Ile Met Thr Met Ile
      275      280      285
Val His Lys Asn Trp Val Asp Leu Ala Trp Ala Val Ser Tyr Tyr Ile
      290      295      300
Arg Phe Phe Ile Thr Tyr Ile Pro Phe Tyr Gly Ile Leu Gly Ala Leu
      305      310      315      320
Leu Phe Leu Asn Phe Ile Arg Phe Leu Glu Ser His Trp Phe Val Trp
      325      330      335
Val Thr Gln Met Asn His Ile Val Met Glu Ile Asp Gln Glu Ala Tyr
      340      345      350
Arg Asp Trp Phe Ser Ser Gln Leu Thr Ala Thr Cys Asn Val Glu Gln
      355      360      365
Ser Phe Phe Asn Asp Trp Phe Ser Gly His Leu Asn Phe Gln Ile Glu
      370      375      380
His His Leu Phe Pro Thr Met Pro Arg His Asn Leu His Lys Ile Ala
      385      390      395      400
Pro Leu Val Lys Ser Leu Cys Ala Lys His Gly Ile Glu Tyr Gln Glu
      405      410      415
Lys Pro Leu Leu Arg Ala Leu Leu Asp Ile Ile Arg Ser Leu Lys Lys
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Ser Gly Lys Leu Trp Leu Asp Ala Tyr Leu His Lys
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<210> 3149  
 <211> 1006  
 <212> DNA  
 <213> Homo sapiens

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120
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180
gatcagatcg agcagctcca tcggagattt aagcagctga gtggagatca gcctaccatt
240
cgcaaggaga acttcaacaa tgtcccggaac ctggagctca accccatccg atccaaaatt
300
gttcgtgcct tcttcgacaa caggaacctg cgcaagggaac ccagtggcct ggctgatgag
360
atcaatttcg aggacttccg gaccatcatg tcctacttcc ggcccacga caccaccatg
420
gacgaggaac aggtggagct gtcccgaag gagaagctga gatttctgtt ccacatgtac
480
gactcggaca gcgacggccg catcactctg gaagaatata gaaatgtaaa gtggctcagg
540
agctgctgtc gggaaacct caccatcgaga aggagtccgc tcgctccatc gccgacgggg
600
ccatgatgga ggcggccagc gtgtgcatgg ggcagatgga gcctgatcag gtgtacgagg
660
ggatcacctt cgaggacttc ctgaagatct ggcaggggat cgacattgag accaagatgc
720

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acgtccgctt ccttaacatg gaaaccatgg ccctctgcca ctgacccacc gccacctccg  
 780  
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 840  
 ggccgacagc ctcttctgc agcgccggtta catagccaag gctcgtctgc gcaccttggt  
 900  
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 960  
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<210> 3150

<211> 201

<212> PRT

<213> Homo sapiens

<400> 3150

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			20					25					30		
Ala	Pro	Ala	Ala	Gly	Thr	Met	Gly	Ala	Ala	His	Ser	Ala	Ser	Glu	Glu
		35					40					45			
Val	Arg	Glu	Leu	Glu	Gly	Lys	Thr	Gly	Phe	Ser	Ser	Asp	Gln	Ile	Glu
	50					55					60				
Gln	Leu	His	Arg	Arg	Phe	Lys	Gln	Leu	Ser	Gly	Asp	Gln	Pro	Thr	Ile
65					70					75				80	
Arg	Lys	Glu	Asn	Phe	Asn	Asn	Val	Pro	Asp	Leu	Glu	Leu	Asn	Pro	Ile
			85						90				95		
Arg	Ser	Lys	Ile	Val	Arg	Ala	Phe	Phe	Asp	Asn	Arg	Asn	Leu	Arg	Lys
			100					105					110		
Gly	Pro	Ser	Gly	Leu	Ala	Asp	Glu	Ile	Asn	Phe	Glu	Asp	Phe	Leu	Thr
		115					120					125			
Ile	Met	Ser	Tyr	Phe	Arg	Pro	Ile	Asp	Thr	Thr	Met	Asp	Glu	Glu	Gln
	130					135					140				
Val	Glu	Leu	Ser	Arg	Lys	Glu	Lys	Leu	Arg	Phe	Leu	Phe	His	Met	Tyr
145					150					155				160	
Asp	Ser	Asp	Ser	Asp	Gly	Arg	Ile	Thr	Leu	Glu	Glu	Tyr	Arg	Asn	Val
			165					170					175		
Lys	Trp	Ser	Arg	Ser	Cys	Cys	Arg	Glu	Thr	Leu	Thr	Ser	Arg	Arg	Ser
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Pro	Leu	Ala	Pro	Ser	Pro	Thr	Gly	Pro							
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<210> 3151

<211> 2079

<212> DNA

<213> Homo sapiens

<400> 3151

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 120

cctgggcctc tgggtggagc agggacccga accggtgccc atccagtcg gtgccatctg  
180  
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240  
gccctactat atttccgttc ctatcaaaaa atggatgact cggagacagg tttcaatctg  
300  
aaagtgcgcc tggtcagttt caagcagtgt ctgatgaga aggaagaggt cttgctggac  
360  
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420  
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480  
ccgcagagcg agcactaccg cagcctgcag gccatggtgg cccacgagct gagcaaccgg  
540  
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600  
ctgcaccgag cctgcactg gctgcagctg ttctggagg gcctgcgtac cagccccgag  
660  
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720  
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780  
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840  
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900  
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960  
gctgcggtgg ccagggccgt gagtccctg gcagagcctt ctgggcgctg cgggaacagg  
1020  
agatcctctg tgcacctgt gagctgagct ggtaggaac cacagactgt gacagagaag  
1080  
gtggcgacca gccagaaga ggcccacct ctcggtccg aacaagacgc ctacgccag  
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cagagcaggc aggggtgggg gccgggccc caagagccc aaaggtcgcc acccctagc  
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1380  
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1680  
cccagcccag cccaaggccc ccaggagctg ggactctgct acaccagtg aaatgctgtg  
1740



tcccttctcc cccgtgcccc ttgatgcccc ctccccacag tgctcaggag acccgtgggg  
 1800  
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 1860  
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 1920  
 acctcggggg ggagagggga cggccccccac ggcccagcag acatgcgagc ttccagagtg  
 1980  
 caatctatgt gatgtcttcc aacgttaata aatcacacag cctcccagga gggagacgct  
 2040  
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 2079

<210> 3152

<211> 214

<212> PRT

<213> Homo sapiens

<400> 3152

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Phe	Lys	Gln	Cys	Leu	Asp	Glu	Lys	Glu	Glu	Val	Leu	Leu	Asp	Pro	Tyr
		20					25					30			
Ile	Ala	Ser	Trp	Lys	Gly	Leu	Val	Arg	Phe	Leu	Asn	Ser	Leu	Gly	Thr
	35					40					45				
Ile	Phe	Ser	Phe	Ile	Ser	Lys	Asp	Val	Val	Ser	Lys	Leu	Arg	Ile	Met
	50				55					60					
Glu	Arg	Leu	Arg	Gly	Gly	Pro	Gln	Ser	Glu	His	Tyr	Arg	Ser	Leu	Gln
65				70					75					80	
Ala	Met	Val	Ala	His	Glu	Leu	Ser	Asn	Arg	Leu	Val	Asp	Leu	Glu	Gly
			85					90					95		
Arg	Ser	His	His	Pro	Glu	Ser	Gly	Cys	Arg	Thr	Val	Leu	Arg	Leu	His
	100						105					110			
Arg	Ala	Leu	His	Trp	Leu	Gln	Leu	Phe	Leu	Glu	Gly	Leu	Arg	Thr	Ser
	115					120						125			
Pro	Glu	Asp	Ala	Arg	Thr	Ser	Ala	Leu	Cys	Ala	Asp	Ser	Tyr	Asn	Ala
	130					135					140				
Ser	Leu	Ala	Ala	Tyr	His	Pro	Trp	Val	Val	Arg	Arg	Ala	Val	Thr	Val
145				150					155					160	
Ala	Phe	Cys	Thr	Leu	Pro	Thr	Arg	Glu	Val	Phe	Leu	Glu	Ala	Met	Asn
			165					170						175	
Val	Gly	Pro	Pro	Glu	Gln	Ala	Val	Gln	Met	Leu	Gly	Glu	Ala	Leu	Pro
		180				185						190			
Phe	Ile	Gln	Arg	Val	Tyr	Asn	Val	Ser	Gln	Lys	Leu	Tyr	Ala	Glu	His
	195					200						205			
Ser	Leu	Leu	Asp	Leu	Pro										
	210														

<210> 3153

<211> 1498

<212> DNA

<213> Homo sapiens

<400> 3153

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120  
cccactcagc aaccaacaag gaggaagcc cccgcagtgc tcggccagtg ccgcgccatc  
180  
gccaccaggg agcgcgccgc gcgcgggtcca cgtggcagag gtcgcggcct cgcggcgcg  
240  
ggaggagccg cacgccacag tggcaggtcc caggccgtca ctccgagctc tcgccttcg  
300  
ggccgctgtc cggcgtgggc gggaggaggg gtctccggcg cgagcgcttg acccggcg  
360  
agggctgcag cagcctccgc ttcagcacag cagccactgt gtcctggctg tccgctgtgg  
420  
gccccagta gatgctctcc ccgcgtcgga agtttctgtg cagccgtgtg cagagcggtg  
480  
ccagggtgag cagcaccagc aggaaggtca gggccatggc agcccaggcg gcctcttcag  
540  
tgcgtggggg ggggccccgg gctgcccgtg gagcgctgct gcgcgagggg ccggggaagc  
600  
ctgacttgaa cagacacagc ccctggggt gccttgcccg ttgggcacct gagcctctgt  
660  
cctggagctg gcattgcctc caggcgcccc cggcagcagg gagacagtgg gcacagatgg  
720  
ggcattactc tccctaccag ggattcccgc catggactgc ttggccttca agctccctgg  
780  
ggaagcagag ggaaacctca gggctgagcg agtgggctgg ggaccaaggg cagcccgcag  
840  
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900  
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960  
cttcgggcac agcctccctc taccgggagt tggctcggag ggagcaggcc ctgaaaggct  
1020  
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1080  
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1260  
gaaggtgaca tcctcagcct gccctgggct cactcgtgtg taggtcactc ttggtgacac  
1320  
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1380  
agccatcacc tgtgggtcca aagcgaagag ttggggcgct ggacgcggcg aggcctgcc  
1440  
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1498

&lt;210&gt; 3154

&lt;211&gt; 65

&lt;212&gt; PRT

<213> Homo sapiens

<400> 3154

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Thr Asp Thr Ala Pro Trp Ala Ala Leu Pro Val Gly His Leu Ser Leu
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Cys Pro Gly Ala Gly Ile Ala Ser Arg Arg Pro Arg Gln Gln Gly Asp
          20           25           30
Ser Gly His Arg Trp Gly Ile Thr Leu Pro Thr Arg Asp Ser Arg His
          35           40           45
Gly Leu Leu Gly Leu Gln Ala Pro Trp Gly Ser Arg Gly Lys Pro Gln
 50           55           60
Gly
65

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<210> 3155

<211> 551

<212> DNA

<213> Homo sapiens

<400> 3155

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120
actaactgtg actcttcttc agaaggactg gaaaaggaca cagcaacaca gagaagtgc
180
cagacttggc tagaaccatc atgttcatgt tcttctgaaa atcaggaatg ccagactgct
240
gccagccctg gggaaattct ggaaattttg aagaaaggga aggcatttgt tttagatatt
300
gacttggatt ttttttcagt caagaatccc ttcaaaaaaa tgttcactca ggaagagtac
360
aaaatcttac aagagctgta ccaatttaag aaacctggca ccaacctaac agaggaagat
420
ttggtagata ttgttgatac tcgaattcat caattagagg atttagaagc cactttcgct
480
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<210> 3156

<211> 178

<212> PRT

<213> Homo sapiens

<400> 3156

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Met Val Lys Pro Tyr Lys Leu Cys Asn Asn Gln Glu Glu Asn Asp Ala
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Val Ser Ser Ala Lys Lys Pro Lys Leu Ala Leu Glu Asp Ser Glu Asn
          20           25           30
Thr Ala Ser Thr Asn Cys Asp Ser Ser Ser Glu Gly Leu Glu Lys Asp
          35           40           45
Thr Ala Thr Gln Arg Ser Asp Gln Thr Cys Leu Glu Pro Ser Cys Ser

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50		55		60
Cys Ser Ser Glu Asn Gln Glu Cys Gln Thr Ala Ala Ser Pro Gly Glu				
65		70		75
Ile Leu Glu Ile Leu Lys Lys Gly Lys Ala Phe Val Leu Asp Ile Asp				80
	85		90	95
Leu Asp Phe Phe Ser Val Lys Asn Pro Phe Lys Lys Met Phe Thr Gln				
	100		105	110
Glu Glu Tyr Lys Ile Leu Gln Glu Leu Tyr Gln Phe Lys Lys Pro Gly				
	115		120	125
Thr Asn Leu Thr Glu Glu Asp Leu Val Asp Ile Val Asp Thr Arg Ile				
	130		135	140
His Gln Leu Glu Asp Leu Glu Ala Thr Phe Ala Asp Leu Cys Asp Gly				
145		150		155
Asp Asp Glu Glu Thr Val Gln Gly Trp Ala Ser Asn Pro Gly Met Glu				160
	165		170	175
Ser Leu				

&lt;210&gt; 3157

&lt;211&gt; 903

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3157

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 120  
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 180  
 caggaggtcc tatcagagaa gatggagccc tccagtttcc agcccctacc tgaaactgag  
 240  
 cctccaactc cagagcctgg gccaagaca cctcctagga ctatgcagga atcaccactg  
 300  
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 360  
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 420  
 ctgtgatttc agagatgtgg gaccgtgctg gaccagatct tccccacag caagactggg  
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 660  
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 720  
 gaacaggacc ccacggacga ggatccctgc cggggtgtgg gccctgctct ggtcaccacc  
 780  
 cgctggcgct cccccagggg ccggagccgg ggccgccccca gcaactggggg cggggtggtt  
 840  
 agggggcgcc gttgcgatgt atgtggcaag gtgttcagcc aacgcagcaa cctgctgagg  
 900

cac  
903

<210> 3158

<211> 92

<212> PRT

<213> Homo sapiens

<400> 3158

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Val Leu Ser Glu Lys Met Glu Pro Ser Ser Phe Gln Pro Leu Pro Glu
      20           25           30
Thr Glu Pro Pro Thr Pro Glu Pro Gly Pro Lys Thr Pro Pro Arg Thr
      35           40           45
Met Gln Glu Ser Pro Leu Gly Leu Gln Val Lys Glu Glu Ser Glu Val
      50           55           60
Thr Glu Asp Ser Asp Phe Leu Glu Ser Gly Pro Leu Ala Ala Thr Gln
65           70           75           80
Glu Ser Val Pro Thr Leu Leu Pro Glu Glu Ala Gln
      85           90

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<210> 3159

<211> 2408

<212> DNA

<213> Homo sapiens

<400> 3159

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120
ccctggcaga ctaacgaagc agctcccttc ccaccccaac tgcaggtcta attttggacg
180
ctttgcctgc catttcttcc aggttgaggg agccgcagag gcggaggctc gcgtattcct
240
gcagtcagca cccacgtcgc ccccgacgc tcggtgctca ggcccttcgc gacgggggct
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360
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600
gccaaacaac gagggaaaag ggccatcaca gacaatgaca tgcagagtat tttggacctt
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cataataaat tacgaagtca ggtgtatcca acagcctcta atatggagta tatgacatgg
720
gatgtagagc tggaaagatc tgcagaatcc tgggctgaaa gttgcttgtg ggaacatgga
780

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cctgcaagct tgcttccatc aattggacag aatttgggag cacactgggg aagatatagg  
840  
cccccgacgt ttcattgtaca atcgtgggtat gatgaagtga aagacttttag ctacccatat  
900  
gaacatgaat gcaacccata ttgtccattc aggtgttctg gccctgtatg tacacattat  
960  
acacaggtcg tgtgggcaac tagtaacaga atcgggttggt ccattaattt gtgtcataac  
1020  
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1080  
aagggaaact ggtggggcca tgccccttac aaacatgggc ggccctgttc tgcttgccca  
1140  
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1200  
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1260  
accatgtcc ggacaagatc agatgatagt agcagaaatg aagtcataag cgcacagcaa  
1320  
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1380  
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1440  
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1560  
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gtaacagttc aggtctgtgac ttgtgaaaca actgtggaca gctctgtcca tttcataagc  
1680  
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1740  
atgctcgtgt aattgggact cgagtttatt ctgatctgtc cagtatctgc agagcagcag  
1800  
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1860  
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1920  
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1980  
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2040  
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2100  
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2160  
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2220  
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2280  
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2340  
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2400

tgccatta

2408

&lt;210&gt; 3160

&lt;211&gt; 431

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3160

```

Met Lys Cys Thr Ala Arg Glu Trp Leu Arg Val Thr Thr Val Leu Phe
 1          5          10          15
Met Ala Arg Ala Ile Pro Ala Met Val Val Pro Asn Ala Thr Leu Leu
          20          25          30
Glu Lys Leu Leu Glu Lys Tyr Met Asp Glu Asp Gly Glu Trp Trp Ile
          35          40          45
Ala Lys Gln Arg Gly Lys Arg Ala Ile Thr Asp Asn Asp Met Gln Ser
          50          55          60
Ile Leu Asp Leu His Asn Lys Leu Arg Ser Gln Val Tyr Pro Thr Ala
          65          70          75          80
Ser Asn Met Glu Tyr Met Thr Trp Asp Val Glu Leu Glu Arg Ser Ala
          85          90          95
Glu Ser Trp Ala Glu Ser Cys Leu Trp Glu His Gly Pro Ala Ser Leu
          100          105          110
Leu Pro Ser Ile Gly Gln Asn Leu Gly Ala His Trp Gly Arg Tyr Arg
          115          120          125
Pro Pro Thr Phe His Val Gln Ser Trp Tyr Asp Glu Val Lys Asp Phe
          130          135          140
Ser Tyr Pro Tyr Glu His Glu Cys Asn Pro Tyr Cys Pro Phe Arg Cys
          145          150          155          160
Ser Gly Pro Val Cys Thr His Tyr Thr Gln Val Val Trp Ala Thr Ser
          165          170          175
Asn Arg Ile Gly Cys Ala Ile Asn Leu Cys His Asn Met Asn Ile Trp
          180          185          190
Gly Gln Ile Trp Pro Lys Ala Val Tyr Leu Val Cys Asn Tyr Ser Pro
          195          200          205
Lys Gly Asn Trp Trp Gly His Ala Pro Tyr Lys His Gly Arg Pro Cys
          210          215          220
Ser Ala Cys Pro Pro Ser Phe Gly Gly Gly Cys Arg Glu Asn Leu Cys
          225          230          235          240
Tyr Lys Glu Gly Ser Asp Arg Tyr Tyr Pro Pro Arg Glu Glu Glu Thr
          245          250          255
Asn Glu Ile Glu Arg Gln Gln Ser Gln Val His Asp Thr His Val Arg
          260          265          270
Thr Arg Ser Asp Asp Ser Ser Arg Asn Glu Val Ile Ser Ala Gln Gln
          275          280          285
Met Ser Gln Ile Val Ser Cys Glu Val Arg Leu Arg Asp Gln Cys Lys
          290          295          300
Gly Thr Thr Cys Asn Arg Tyr Glu Cys Pro Ala Gly Cys Leu Asp Ser
          305          310          315          320
Lys Ala Lys Val Ile Gly Ser Val His Tyr Glu Met Gln Ser Ser Ile
          325          330          335
Cys Arg Ala Ala Ile His Tyr Gly Ile Ile Asp Asn Asp Gly Gly Trp
          340          345          350
Val Asp Ile Thr Arg Gln Gly Arg Lys His Tyr Phe Ile Lys Ser Asn

```

355		360		365
Arg Asn Gly Ile Gln Thr Ile Gly Lys Tyr Gln Ser Ala Asn Ser Phe				
370		375		380
Thr Val Ser Lys Val Thr Val Gln Ala Val Thr Cys Glu Thr Thr Val				
385		390		395
Asp Ser Ser Val His Phe Ile Ser Leu Leu His Ile Ala Gln Glu Tyr				
	405		410	415
Thr Val Leu Val Thr Val Cys Lys Gln Ile His Ile Met Leu Val				
420		425		430

&lt;210&gt; 3161

&lt;211&gt; 1197

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3161

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180
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240
aacgtggtgg aggatgagat tgatcagtag ctcagcaaac aggacgggaa gatttacaga
300
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360
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420
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660
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720
cttgccatca gggctgaagt ggctgagatt tatgagccac ctcagattgg tacacagaac
780
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840
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900
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960
gcaggagact tccagaacaa gcaccccaac atgtgccggc tctctccaga cggacatttt
1020
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1080
gggtaccagg tgtccaatca gtgtatggca ctgggtccgtg atgagtgttt gctgccatgc
1140

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1197

<210> 3162

<211> 386

<212> PRT

<213> Homo sapiens

<400> 3162

Xaa	Thr	Pro	Ala	Lys	Phe	Leu	Lys	Lys	Val	Ala	Lys	Glu	Phe	Gly	Phe
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Gln	Asn	Asn	Gly	Phe	Ser	Val	Asn	Ile	Asn	Arg	Asn	Lys	Thr	Gly	Glu
			20					25					30		
Ile	Thr	Ala	Ser	Ser	Asn	Lys	Ser	Leu	Asn	Leu	Leu	Lys	Ile	Lys	His
		35					40					45			
Gly	Asp	Leu	Leu	Phe	Leu	Phe	Pro	Ser	Ser	Leu	Ala	Gly	Pro	Ser	Ser
	50					55					60				
Glu	Met	Glu	Thr	Ser	Val	Pro	Pro	Gly	Phe	Lys	Val	Phe	Gly	Ala	Pro
65					70					75				80	
Asn	Val	Val	Glu	Asp	Glu	Ile	Asp	Gln	Tyr	Leu	Ser	Lys	Gln	Asp	Gly
				85					90					95	
Lys	Ile	Tyr	Arg	Ser	Arg	Asp	Pro	Gln	Leu	Cys	Arg	His	Gly	Pro	Leu
			100					105					110		
Gly	Lys	Cys	Val	His	Cys	Val	Pro	Leu	Glu	Pro	Phe	Asp	Glu	Asp	Tyr
		115						120				125			
Leu	Asn	His	Leu	Glu	Pro	Pro	Val	Lys	His	Met	Ser	Phe	His	Ala	Tyr
		130					135					140			
Ile	Arg	Lys	Leu	Thr	Gly	Gly	Ala	Asp	Lys	Gly	Lys	Phe	Val	Ala	Leu
145					150					155				160	
Glu	Asn	Ile	Ser	Cys	Lys	Ile	Lys	Ser	Gly	Cys	Glu	Gly	His	Leu	Pro
				165					170					175	
Trp	Pro	Asn	Gly	Ile	Cys	Thr	Lys	Cys	Gln	Pro	Ser	Ala	Ile	Thr	Leu
			180					185					190		
Asn	Arg	Gln	Lys	Tyr	Arg	His	Val	Asp	Asn	Ile	Met	Phe	Glu	Asn	His
		195					200					205			
Thr	Val	Ala	Asp	Arg	Phe	Leu	Asp	Phe	Trp	Arg	Lys	Thr	Gly	Asn	Gln
		210					215					220			
His	Phe	Gly	Tyr	Leu	Tyr	Gly	Arg	Tyr	Thr	Glu	His	Lys	Asp	Ile	Pro
225					230					235				240	
Leu	Gly	Ile	Arg	Ala	Glu	Val	Ala	Ala	Ile	Tyr	Glu	Pro	Pro	Gln	Ile
				245					250					255	
Gly	Thr	Gln	Asn	Ser	Leu	Glu	Leu	Leu	Glu	Asp	Pro	Lys	Ala	Glu	Val
			260					265					270		
Val	Asp	Glu	Ile	Ala	Ala	Lys	Leu	Gly	Leu	Arg	Lys	Val	Gly	Trp	Ile
		275					280					285			
Phe	Thr	Asp	Leu	Val	Ser	Glu	Asp	Thr	Arg	Lys	Gly	Thr	Val	Arg	Tyr
		290					295				300				
Ser	Arg	Asn	Lys	Asp	Thr	Tyr	Phe	Leu	Ser	Ser	Glu	Glu	Cys	Ile	Thr
305					310					315				320	
Ala	Gly	Asp	Phe	Gln	Asn	Lys	His	Pro	Asn	Met	Cys	Arg	Leu	Ser	Pro
				325					330					335	
Asp	Gly	His	Phe	Gly	Ser	Lys	Phe	Val	Thr	Ala	Val	Ala	Thr	Gly	Gly
			340					345					350		
Pro	Asp	Asn	Gln	Val	His	Phe	Glu	Gly	Tyr	Gln	Val	Ser	Asn	Gln	Cys

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 370                      375                      380  
 Val Cys  
 385

<210> 3163  
 <211> 1075  
 <212> DNA  
 <213> Homo sapiens

<400> 3163  
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 120  
 tggggggtac cagtggacce actgactcct ggacatcagg atgctctgcc atggcaaagg  
 180  
 tgttatcatc catgttcttc gtcttcagtt cctcctcggc aggcctgcgc ctaccgggt  
 240  
 tcatgcagct cttcagctgc cntggcctca gcctccacgg gacctggga ctggggctgt  
 300  
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 360  
 gcgggtgcga tccggagcag gactgtgtag ttgcggccgt ggttgttggc ccagaaagt  
 420  
 cctcannngg ggtctcatag cgcaccanng aagtcgaggg gcgccccatc gcccgcgccc  
 480  
 tcagcaaagg gcagctggaa ggcaaagcgg tcggtgcggc cgccgtcgtc gggcgaggag  
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 660  
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 720  
 gcacgcgtac caaccgcgc agcaccggcg ggcggccccc aggcacccac accccggcac  
 780  
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 900  
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 960  
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 1020  
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 1075

<210> 3164  
 <211> 94  
 <212> PRT  
 <213> Homo sapiens

&lt;400&gt; 3164

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Met Asp Gly Glu Gly Trp Gly Leu Pro Val Asp Pro Leu Thr Pro Gly
 1           5           10           15
His Gln Asp Ala Leu Pro Trp Gln Arg Cys Tyr His Pro Cys Ser Ser
      20           25           30
Ser Ser Val Pro Pro Arg Gln Ala Cys Ala Ser Pro Ala Ser Cys Ser
      35           40           45
Ser Ser Ala Ala Xaa Ala Ser Ala Ser Thr Gly Pro Trp His Ser Gly
      50           55           60
Cys Gly Ser Ser Cys Gly Ser Cys Cys Cys Trp Gly Ser Pro Ser Ala
65           70           75           80
Ser Val Gly Val Gly Ala Gly Ala Ile Arg Ser Arg Thr Val
      85           90

```

&lt;210&gt; 3165

&lt;211&gt; 2413

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3165

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tccggggccg ggccaggtct aggttcccag gggatggatc tcgtgtggag tgcgtggtac
120
ggaaagtgcg ttaaagggaa agggtcgttg ccactctcgg cccacggcat cgtggtcgcc
180
tggctcagca gggccgagtg ggaaccaggtg acggtttatc tgttctgtga cgaccataag
240
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300
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ggcttgggca ctgatgaact tagactgctc tatggcatgg cattggtcag gtttgtgaat
420
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gtaaatattc cggattggat tgttgacctt cgccatgagt tgaccacaa gaaaatgccc
540
catataaatg actgccgcag aggtgctac tttgtcctgg attggctcca gaagacctat
600
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660
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720
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840
ctatatgaaa gagcccgaga actgctggta tcatacgaag aggagcagtt tacggtgctg
900
gagaaattta ggtattttacc taaggccatt aaggcgtgga ataaccctgc cccacgtgta
960
gaatgtgtcc tggcagagct caagggcggt acatgcgaga acagggaggc tgtgctggat
1020

```

gcttttctgg atgatggctt ccttgctccc acatttgaac agttggcagc tttgcagata  
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1260  
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1380  
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1680  
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1740  
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1860  
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1920  
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1980  
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2040  
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2100  
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2340  
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2400  
aaaaaaaaaa aaa  
2413

&lt;210&gt; 3166

&lt;211&gt; 717

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3166

```

Met Ser Trp Glu Ser Gly Ala Gly Pro Gly Leu Gly Ser Gln Gly Met
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Asp Leu Val Trp Ser Ala Trp Tyr Gly Lys Cys Val Lys Gly Lys Gly
      20          25          30
Ser Leu Pro Leu Ser Ala His Gly Ile Val Val Ala Trp Leu Ser Arg
      35          40          45
Ala Glu Trp Asp Gln Val Thr Val Tyr Leu Phe Cys Asp Asp His Lys
      50          55          60
Leu Gln Arg Tyr Ala Leu Asn Arg Ile Thr Val Trp Arg Ser Arg Ser
      65          70          75          80
Gly Asn Glu Leu Pro Leu Ala Val Ala Ser Thr Ala Asp Leu Ile Arg
      85          90          95
Cys Lys Leu Leu Asp Val Thr Gly Gly Leu Gly Thr Asp Glu Leu Arg
      100          105          110
Leu Leu Tyr Gly Met Ala Leu Val Arg Phe Val Asn Leu Ile Ser Glu
      115          120          125
Arg Lys Thr Lys Phe Ala Lys Val Pro Leu Lys Cys Leu Ala Gln Glu
      130          135          140
Val Asn Ile Pro Asp Trp Ile Val Asp Leu Arg His Glu Leu Thr His
      145          150          155          160
Lys Lys Met Pro His Ile Asn Asp Cys Arg Arg Gly Cys Tyr Phe Val
      165          170          175
Leu Asp Trp Leu Gln Lys Thr Tyr Trp Cys Arg Gln Leu Glu Asn Ser
      180          185          190
Leu Arg Glu Thr Trp Glu Leu Glu Phe Arg Glu Gly Ile Glu Glu
      195          200          205
Glu Asp Gln Glu Glu Asp Lys Asn Ile Val Val Asp Asp Ile Thr Glu
      210          215          220
Gln Lys Pro Glu Pro Gln Asp Asp Gly Lys Ser Thr Glu Ser Asp Val
      225          230          235          240
Lys Ala Asp Gly Asp Ser Lys Gly Ser Glu Glu Val Asp Ser His Cys
      245          250          255
Lys Lys Ala Leu Ser His Lys Glu Leu Tyr Glu Arg Ala Arg Glu Leu
      260          265          270
Leu Val Ser Tyr Glu Glu Glu Gln Phe Thr Val Leu Glu Lys Phe Arg
      275          280          285
Tyr Leu Pro Lys Ala Ile Lys Ala Trp Asn Asn Pro Ser Pro Arg Val
      290          295          300
Glu Cys Val Leu Ala Glu Leu Lys Gly Val Thr Cys Glu Asn Arg Glu
      305          310          315          320
Ala Val Leu Asp Ala Phe Leu Asp Asp Gly Phe Leu Val Pro Thr Phe
      325          330          335
Glu Gln Leu Ala Ala Leu Gln Ile Glu Tyr Glu Glu Asn Val Asp Leu
      340          345          350
Asn Asp Val Leu Val Pro Lys Pro Phe Ser Gln Phe Trp Gln Pro Leu
      355          360          365
Leu Arg Gly Leu His Ser Gln Asn Phe Thr Gln Ala Leu Leu Glu Arg
      370          375          380
Met Leu Ser Glu Leu Pro Ala Leu Gly Ile Ser Gly Ile Arg Pro Thr
      385          390          395          400
Tyr Ile Leu Arg Trp Thr Val Glu Leu Ile Val Ala Asn Thr Lys Thr
      405          410          415
Gly Arg Asn Ala Arg Arg Phe Ser Ala Gly Gln Trp Glu Ala Arg Arg

```

420 425 430  
 Gly Trp Arg Leu Phe Asn Cys Ser Ala Ser Leu Asp Trp Pro Arg Met  
 435 440 445  
 Val Glu Ser Cys Leu Gly Ser Pro Cys Trp Ala Ser Pro Gln Leu Leu  
 450 455 460  
 Arg Ile Ile Phe Lys Ala Met Gly Gln Gly Leu Pro Asp Glu Glu Gln  
 465 470 475 480  
 Glu Lys Leu Leu Arg Ile Cys Ser Ile Tyr Thr Gln Ser Gly Glu Asn  
 485 490 495  
 Ser Leu Val Gln Glu Gly Ser Glu Ala Ser Pro Ile Gly Lys Ser Pro  
 500 505 510  
 Tyr Thr Leu Asp Ser Leu Tyr Trp Ser Val Lys Pro Ala Ser Ser Ser  
 515 520 525  
 Phe Gly Ser Glu Ala Lys Ala Gln Gln Gln Glu Glu Gln Gly Ser Val  
 530 535 540  
 Asn Asp Val Lys Glu Glu Glu Lys Glu Glu Lys Glu Val Leu Pro Asp  
 545 550 555 560  
 Gln Val Glu Glu Glu Glu Glu Asn Asp Asp Gln Glu Glu Glu Glu Glu  
 565 570 575  
 Asp Glu Asp Asp Glu Asp Asp Glu Glu Glu Asp Arg Met Glu Val Gly  
 580 585 590  
 Pro Phe Ser Thr Gly Gln Glu Ser Pro Thr Ala Glu Asn Ala Arg Leu  
 595 600 605  
 Leu Ala Gln Lys Arg Gly Ala Leu Gln Gly Ser Ala Trp Gln Val Ser  
 610 615 620  
 Ser Glu Asp Val Arg Trp Asp Thr Phe Pro Leu Gly Arg Met Pro Gly  
 625 630 635 640  
 Gln Thr Glu Asp Pro Ala Glu Leu Met Leu Glu Asn Tyr Asp Thr Met  
 645 650 655  
 Tyr Leu Leu Asp Gln Pro Val Leu Glu Gln Arg Leu Glu Pro Ser Thr  
 660 665 670  
 Cys Lys Thr Asp Thr Leu Gly Leu Ser Cys Gly Val Gly Ser Gly Asn  
 675 680 685  
 Cys Ser Asn Ser Ser Ser Ser Asn Phe Glu Gly Leu Leu Trp Ser Gln  
 690 695 700  
 Gly Gln Leu His Gly Leu Lys Thr Gly Leu Gln Leu Phe  
 705 710 715

&lt;210&gt; 3167

&lt;211&gt; 2730

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3167

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 gcctagtggga aagccatgga gagcgctctc cccgccgccg gcttcctgta ctgggtcggc  
 120  
 gcgggcaccg tggcctacct agccctgcgt atttcgtact cgctcttcac ggccctccgg  
 180  
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 240  
 acaggtagta ctgatggaat tggaaaatca tatgcagaag agttagcaaa gcatggaatg  
 300

aaggttgtcc ttatcagcag atcaaaggat aaacttgacc aggtttccag tgaaataaaa  
360  
gaaaaattca aagtggagac aagaaccatt gctgttgact ttgcatcaga agatatttat  
420  
gataaaatta aaacaggctt ggctggctt gaaatcggca tcttagtgaa caacgtggga  
480  
atgtcgtatg agtatcctga atactttttg gatgttcctg acttggacaa tgtgatcaag  
540  
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600  
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660  
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720  
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780  
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840  
gtgaagtctg caattaaaac agtcggcctg caatcccga ccaatggata cctgatccat  
900  
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960  
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&lt;210&gt; 3168

&lt;211&gt; 312

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3168

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&lt;211&gt; 5945

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3169

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<211> 412

<212> PRT

<213> Homo sapiens

<400> 3170

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His	Lys	His	Asp	Val	Ile	Met	Lys	Ser	Gln	Leu	Arg	His	Lys	Ser	Ser
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&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3171

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&lt;212&gt; PRT

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Glu Glu Glu Gln Lys Lys Ala Leu Tyr Gly Leu Glu Ala Ala Glu Asp
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Val Glu Glu Trp Gln Val Val Cys Gly Lys Phe Leu Ala Ile Asn Ala
          165          170          175
Thr Asn Met Ser Cys Ala Cys Arg Arg Ser Pro Arg Gly Leu Ser Pro
          180          185          190
Ala Ala His Leu Gly Asp Gly Ser Ser Asp Leu Ile Leu Ile Arg Lys
          195          200          205
Cys Ser Arg Phe Asn Phe Leu Arg Phe Leu Ile Trp His Glu Val Cys
          210          215          220
Lys Lys Pro Leu
225

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&lt;210&gt; 3173

&lt;211&gt; 573

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3173

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420

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<210> 3174  
 <211> 152  
 <212> PRT  
 <213> Homo sapiens

<400> 3174  
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 35 40 45  
 Val Ala Gln Tyr Phe Arg Glu Lys Tyr Thr Leu Gln Leu Lys Tyr Pro  
 50 55 60  
 His Leu Pro Cys Leu Gln Val Gly Gln Glu Gln Lys His Thr Tyr Leu  
 65 70 75 80  
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 85 90 95  
 Leu Thr Asp Asn Gln Thr Ser Thr Met Ile Lys Ala Thr Ala Arg Ser  
 100 105 110  
 Ala Pro Asp Arg Gln Glu Glu Ile Ser Arg Leu Val Arg Ser Ala Asn  
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 <212> DNA  
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 420



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<210> 3176

<211> 92

<212> PRT

<213> Homo sapiens

<400> 3176

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			20				25						30		
Pro	Asp	Ala	Trp	Gly	Leu	Pro	Thr	Pro	Gln	Gln	Ala	Arg	Gly	Lys	Ala
			35				40						45		
Arg	Gly	Asn	Glu	Tyr	Gln	Pro	Ser	Asn	Ile	Lys	Arg	Lys	Asn	Lys	His
			50				55						60		
Gly	Trp	Val	Arg	Arg	Leu	Ser	Thr	Pro	Ala	Gly	Val	Gln	Val	Ile	Leu
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Arg	Arg	Met	Leu	Lys	Gly	Arg	Lys	Ser	Leu	Ser	His				
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<210> 3177

<211> 1857

<212> DNA

<213> Homo sapiens

<400> 3177

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1857

&lt;210&gt; 3178

<211> 273  
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<400> 3178

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      35           40           45
Leu Leu Ser Asn Leu Ala Thr Arg Leu Trp Leu Arg Asn Gly Ala Pro
      50           55           60
Val Asn Ala Ser Ala Ser Cys His Val Leu Pro Thr Gly Asp Leu Leu
      65           70           75           80
Leu Val Gly Thr Gln Gln Leu Gly Glu Phe Gln Cys Trp Ser Leu Glu
      85           90           95
Glu Gly Phe Gln Gln Leu Val Ala Ser Tyr Cys Pro Glu Val Val Glu
      100          105          110
Asp Gly Val Ala Asp Gln Thr Asp Glu Gly Gly Ser Val Pro Val Ile
      115          120          125
Ile Ser Thr Ser Arg Val Ser Ala Pro Ala Gly Gly Lys Ala Ser Trp
      130          135          140
Gly Ala Asp Arg Ser Tyr Trp Lys Glu Phe Leu Val Met Cys Thr Leu
      145          150          155          160
Phe Val Leu Ala Val Leu Leu Pro Val Leu Phe Leu Leu Tyr Arg His
      165          170          175
Arg Asn Ser Met Lys Val Phe Leu Lys Gln Gly Glu Cys Ala Ser Val
      180          185          190
His Pro Lys Thr Cys Pro Val Val Leu Pro Pro Glu Thr Arg Pro Leu
      195          200          205
Asn Gly Leu Gly Pro Pro Ser Thr Pro Leu Asp His Arg Gly Tyr Gln
      210          215          220
Ser Leu Ser Asp Ser Pro Gly Ala Arg Val Phe Thr Glu Ser Glu
      225          230          235          240
Lys Arg Pro Leu Ser Ile Gln Asp Ser Phe Val Glu Val Ser Pro Val
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<210> 3179  
 <211> 3447  
 <212> DNA  
 <213> Homo sapiens

<400> 3179

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180

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<211> 127

<212> PRT

<213> Homo sapiens

<400> 3180

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			20				25					30			
Ala	Phe	Thr	Pro	Thr	Gly	Lys	Val	Lys	Leu	Thr	Phe	Val	Phe	Leu	Phe
		35				40					45				
Asn	Asn	Phe	Met	Ile	Asn	Lys	Glu	Leu	Gln	Leu	Glu	Thr	Lys	Ala	Asn
	50				55				60						
Ser	Arg	Asn	Ser	Leu	Thr	Pro	Ser	Cys	Pro	Met	Val	Phe	Met	Ile	Ala
65				70				75						80	
Cys	Tyr	Gln	Asn	Glu	Ala	Leu	Cys	Ser	Thr	Leu	Tyr	Ser	Lys	Ala	Phe
			85					90					95		
Tyr	Ala	Pro	Thr	Arg	Pro	Ser	Gly	Ile	Pro	Glu	Ser	Ala	Leu	His	Thr
		100					105					110			
Gly	Arg	Lys	Thr	Ala	Ser	Ser	Tyr	Arg	Leu	Cys	Glu	Asn	Thr	Gln	
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<210> 3181

<211> 287

<212> DNA

<213> Homo sapiens

<400> 3181

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<210> 3182

<211> 95

<212> PRT

<213> Homo sapiens

<400> 3182

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		20					25					30			
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<210> 3184

<211> 140

<212> PRT

<213> Homo sapiens

<400> 3184

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		20						25				30			
Gln	Thr	Gln	Leu	Leu	Val	Pro	Lys	Lys	Val	Leu	Pro	Glu	Ser	Cys	Arg
		35					40					45			
Leu	Ser	Trp	Asn	Leu	Leu	Gly	Asp	Glu	Ala	Ala	Ala	Glu	Leu	Ala	Gln
	50					55					60				
Val	Leu	Pro	Gln	Met	Gly	Arg	Leu	Lys	Arg	Val	Asp	Leu	Glu	Lys	Asn
65				70					75				80		
Gln	Ile	Thr	Ala	Leu	Gly	Ala	Trp	Leu	Leu	Ala	Glu	Gly	Leu	Ala	Gln
		85						90					95		
Gly	Ser	Ser	Ile	Gln	Val	Ile	Arg	Leu	Trp	Asn	Asn	Pro	Ile	Pro	Cys
		100					105					110			
Asp	Met	Ala	Gln	His	Leu	Lys	Ser	Gln	Glu	Pro	Arg	Leu	Asp	Phe	Ala
		115					120					125			
Phe	Phe	Asp	Asn	Gln	Pro	Gln	Ala	Pro	Trp	Gly	Thr				
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<210> 3185

<211> 1433

<212> DNA

<213> Homo sapiens

<400> 3185

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 120  
 cctggttaacc tgaggagggtg tagagcaccc agaaggaagg gtaaaagcag ggggcaaagc  
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 300  
 ccatggggtc cccaccttcc cagccagtga ggtagcatg gttaggagtc cacatgtgtg  
 360



caagtgccttg tgtggaggct catgtatgca tgtgtgtata tgcaaagctg cacatgacaa  
 420  
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 480  
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 660  
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 720  
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 1020  
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<210> 3186

<211> 112

<212> PRT

<213> Homo sapiens

<400> 3186

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His	Asp	Gln	His	Pro	Val	Val	Gly	Gln	Leu	Leu	Gln	Val	Leu	Lys	Ala
		20					25						30		
Gly	Leu	Thr	His	Gly	Val	Leu	Val	Ser	Ile	Tyr	Asn	Gln	Ser	Trp	Ser
		35				40						45			
Leu	Arg	Gly	Arg	Ile	Gly	Gly	Trp	Gly	Arg	Val	Asn	Arg	Thr	Cys	His
	50				55					60					
Ser	Ile	Pro	Ser	Pro	Pro	His	Phe	Ser	Leu	Phe	Leu	Gly	Pro	Pro	His
65				70					75					80	
Met	Arg	Glu	Arg	Asp	Lys	Leu	Ala	Gln	Trp	Val	Gly	Ala	Gln	Ile	Gly

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 Val Cys Pro Arg Thr Gln Phe Ser Thr Gly Leu Gly Thr Val Val Cys  
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<210> 3187  
 <211> 860  
 <212> DNA  
 <213> Homo sapiens

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 240  
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 420  
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<210> 3188  
 <211> 120  
 <212> PRT  
 <213> Homo sapiens

<400> 3188  
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 20 25 30  
 Glu Val Val Leu Pro Asp Pro Val Glu Glu Thr Arg His His Ala Glu  
 35 40 45  
 Val Val Lys Lys Val Asn Glu Met Ile Val Thr Gly Gln Tyr Gly Arg

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      50              55              60
Leu Phe Ala Val Val His Phe Ala Ser Arg Gln Trp Lys Val Thr Ser
65              70              75              80
Glu Asp Leu Ile Leu Ile Gly Asn Glu Leu Asp Leu Ala Cys Gly Glu
      85              90              95
Arg Ile Arg Leu Glu Lys Val Leu Leu Val Gly Ala Asp Asn Phe Thr
      100              105              110
Leu Leu Gly Lys Pro Leu Leu Gly
      115              120

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&lt;210&gt; 3189

&lt;211&gt; 440

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3189

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agcctgggga agcaagtccc tgttttcagt accacctgca tccccaggg cagcatcctt
120
gactccccct ctggggcagt gctgccttgc tttctctgtc tctttcaggg tgtgctgtcc
180
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300
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420
cctcccctat ggcccctgcc
440

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&lt;210&gt; 3190

&lt;211&gt; 111

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3190

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Gly His Gly Trp Gly Arg Thr Leu Ala Trp Leu Ser Thr Arg Gly Leu
1              5              10              15
Ser Leu Gly Lys Gln Val Pro Val Phe Ser Thr Thr Cys Ile Pro Gln
      20              25              30
Gly Ser Ile Leu Asp Ser Pro Ser Gly Pro Val Leu Pro Cys Phe Leu
      35              40              45
Cys Leu Phe Gln Gly Val Leu Ser Asp Leu Thr Lys Val Thr Arg Met
      50              55              60
His Gly Ile Asp Pro Val Val Leu Val Leu Met Val Gly Met Val Met
65              70              75              80
Phe Thr Leu Gly Phe Ala Gly Cys Val Gly Ala Leu Arg Glu Asn Ile
      85              90              95
Cys Leu Leu Asn Phe Val Ser Gly His Arg Asp Lys Ser Gly Ile
      100              105              110

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<210> 3191  
 <211> 266  
 <212> DNA  
 <213> Homo sapiens

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 266

<210> 3192  
 <211> 84  
 <212> PRT  
 <213> Homo sapiens

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 Pro Arg Arg Leu Arg Lys Cys Gly Leu Ser Cys Cys Ser Leu Arg Ser  
 35 40 45  
 Arg Glu Ser Lys Asp Asp Pro Trp Gln Phe Ser Asp Cys Arg Lys Arg  
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 Ser Arg Ser Met Ala Gln Val Ala Asp Thr Glu Gln Gly Thr Ile Ser  
 65 70 75 80  
 Pro Ser Ala Ser

<210> 3193  
 <211> 567  
 <212> DNA  
 <213> Homo sapiens

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 tggagtgagt tgttttgccc ctctgagcct cagtttctcc atctgtgaaa tggggacaac  
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 gagtacgcgg ttcattgttt gcatgcaaag tgcccagccc ctgggtcaaa gtctgtgttc  
 300  
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 360

gctggcctcg tgattcctct ctttccctgc aggccacggg tcacctactt ccccttctcc  
 420  
 ctgggccacc gctcctgcat cgggcagcag tttgctcaga tggaggtgaa ggtggtcatg  
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<210> 3194

<211> 116

<212> PRT

<213> Homo sapiens

<400> 3194

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Lys	Cys	Pro	Ala	Pro	Gly	Ser	Lys	Ser	Val	Phe	Ile	Gln	Thr	Trp	Val
			20					25					30		
Asn	Tyr	Cys	Leu	Pro	Tyr	Val	Val	Pro	Val	Gly	Thr	Pro	Gly	Ala	Ala
			35				40					45			
Gly	Leu	Val	Ile	Pro	Leu	Phe	Pro	Cys	Arg	Pro	Arg	Phe	Thr	Tyr	Phe
	50					55				60					
Pro	Phe	Ser	Leu	Gly	His	Arg	Ser	Cys	Ile	Gly	Gln	Gln	Phe	Ala	Gln
65					70					75				80	
Met	Glu	Val	Lys	Val	Val	Met	Ala	Lys	Leu	Leu	Gln	Arg	Leu	Glu	Phe
			85						90				95		
Arg	Leu	Val	Pro	Gly	Gln	Arg	Phe	Gly	Leu	Gln	Glu	Gln	Ala	Thr	Leu
			100					105					110		
Lys	Pro	Leu	Asp												
			115												

<210> 3195

<211> 987

<212> DNA

<213> Homo sapiens

<400> 3195

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 420  
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 480

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 987

&lt;210&gt; 3196

&lt;211&gt; 153

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3196

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1				5					10					15	
Leu	Asp	Tyr	Glu	Arg	Lys	Thr	Lys	Val	Asp	Phe	Asp	Asp	Phe	Leu	Pro
			20					25					30		
Ala	Ile	Arg	Lys	Pro	Gln	Thr	Pro	Thr	Ser	Leu	Ala	Gly	Ser	Ala	Lys
			35				40					45			
Gly	Gly	Gln	Asp	Gly	Ser	Gln	Arg	Ser	Ser	Ile	His	Phe	Glu	Thr	Glu
	50					55					60				
Glu	Ala	Asn	Arg	Ser	Phe	Leu	Ser	Gly	Ile	Lys	Thr	Ile	Leu	Lys	Lys
65					70					75				80	
Ser	Pro	Glu	Pro	Lys	Glu	Asp	Pro	Ala	His	Leu	Ser	Asp	Ser	Ser	Ser
				85					90				95		
Ser	Ser	Gly	Ser	Ile	Val	Ser	Phe	Lys	Ser	Ala	Asp	Ser	Ile	Lys	Ser
			100					105					110		
Arg	Pro	Gly	Ile	Pro	Arg	Leu	Ala	Gly	Asp	Gly	Gly	Glu	Arg	Thr	Ser
		115				120						125			
Pro	Glu	Arg	Arg	Glu	Pro	Gly	Thr	Gly	Arg	Lys	Asp	Asp	Asp	Val	Ala
	130					135					140				
Ser	Ile	Met	Lys	Lys	Tyr	Leu	Gln	Lys							
145						150									

&lt;210&gt; 3197

&lt;211&gt; 5575

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3197

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4500  
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4620  
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4680  
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4920

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<210> 3198

<211> 833

<212> PRT

<213> Homo sapiens

<400> 3198

Met	Ala	Thr	Leu	Asp	Arg	Lys	Val	Pro	Ser	Pro	Glu	Ala	Phe	Leu	Gly
1			5					10						15	
Lys	Pro	Trp	Ser	Trp	Ile	Asp	Ala	Ala	Lys	Leu	His	Cys	Ser	Asp	
			20			25						30			
Asn	Val	Asp	Leu	Glu	Glu	Ala	Gly	Lys	Glu	Gly	Gly	Lys	Ser	Arg	Glu
			35			40						45			
Val	Met	Arg	Leu	Asn	Lys	Glu	Asp	Met	His	Leu	Phe	Gly	His	Tyr	Pro
			50			55					60				
Ala	His	Asp	Asp	Phe	Tyr	Leu	Val	Val	Cys	Ser	Ala	Cys	Asn	Gln	Val
65					70					75				80	
Val	Lys	Pro	Gln	Val	Phe	Gln	Ser	His	Cys	Glu	Arg	Arg	His	Gly	Ser
				85					90					95	
Met	Cys	Arg	Pro	Ser	Pro	Ser	Pro	Val	Ser	Pro	Ala	Ser	Asn	Pro	Arg
			100					105					110		
Thr	Ser	Leu	Val	Gln	Val	Lys	Thr	Lys	Ala	Cys	Leu	Ser	Gly	His	His
			115				120						125		
Ser	Ala	Ser	Ser	Thr	Ser	Lys	Pro	Phe	Lys	Thr	Pro	Lys	Asp	Asn	Leu
			130				135					140			
Leu	Thr	Ser	Ser	Ser	Lys	Gln	His	Thr	Val	Phe	Pro	Ala	Lys	Gly	Ser
145					150					155				160	
Arg	Asp	Lys	Pro	Cys	Val	Pro	Val	Pro	Val	Ser	Leu	Glu	Lys	Ile	
				165				170						175	
Pro	Asn	Leu	Val	Lys	Ala	Asp	Gly	Ala	Asn	Val	Lys	Met	Asn	Ser	Thr
			180				185						190		
Thr	Thr	Thr	Ala	Val	Ser	Ala	Ser	Pro	Thr	Ser	Ser	Ser	Ala	Val	Ser

```

      195              200              205
Thr Pro Pro Leu Ile Lys Pro Val Leu Met Ser Lys Ser Val Pro Pro
  210              215              220
Ser Pro Glu Lys Ile Leu Asn Gly Lys Gly Ile Leu Pro Thr Thr Ile
  225              230              235              240
Asp Lys Lys His Gln Asn Gly Thr Lys Asn Ser Asn Lys Pro Tyr Arg
      245              250              255
Arg Leu Ser Glu Arg Glu Phe Asp Pro Asn Lys His Cys Gly Val Leu
      260              265              270
Asp Pro Glu Thr Lys Lys Pro Cys Thr Arg Ser Leu Thr Cys Lys Thr
      275              280              285
His Ser Leu Ser His Arg Arg Ala Val Pro Gly Arg Lys Lys Gln Phe
  290              295              300
Asp Leu Leu Leu Ala Glu His Lys Ala Lys Ser Arg Glu Lys Glu Val
  305              310              315              320
Lys Asp Lys Glu His Leu Leu Thr Ser Thr Arg Glu Ile Leu Pro Ser
      325              330              335
Gln Ser Gly Pro Ala Gln Asp Ser Leu Leu Gly Ser Ser Gly Ser Ser
      340              345              350
Gly Pro Glu Pro Lys Val Ala Ser Pro Ala Lys Ser Arg Pro Pro Asn
      355              360              365
Ser Val Leu Pro Arg Pro Ser Ser Ala Asn Ser Ile Ser Ser Ser Thr
  370              375              380
Ser Ser Asn His Ser Gly His Thr Pro Glu Pro Pro Leu Pro Pro Val
  385              390              395              400
Gly Gly Asp Leu Ala Ser Arg Leu Ser Ser Asp Glu Gly Glu Met Asp
      405              410              415
Gly Ala Asp Glu Ser Glu Lys Leu Asp Cys Gln Phe Ser Thr His His
      420              425              430
Pro Arg Pro Leu Ala Phe Cys Ser Phe Gly Ser Arg Leu Met Gly Arg
      435              440              445
Gly Tyr Tyr Val Phe Asp Arg Arg Trp Asp Arg Phe Arg Phe Ala Leu
  450              455              460
Asn Ser Met Val Glu Lys His Leu Asn Ser Gln Met Trp Lys Lys Ile
  465              470              475              480
Pro Pro Ala Ala Asp Ser Pro Met Pro Ser Pro Ala Ala His Ile Thr
      485              490              495
Thr Pro Val Pro Ala Ser Val Leu Gln Pro Phe Ser Asn Pro Ser Ala
      500              505              510
Val Tyr Leu Pro Ser Ala Pro Ile Ser Ser Arg Leu Thr Ser Ser Tyr
      515              520              525
Ile Met Thr Ser Ala Met Leu Ser Asp Ala Ala Phe Val Thr Ser Pro
  530              535              540
Asp Pro Ser Ala Leu Met Ser His Thr Thr Ala Phe Pro His Val Ala
  545              550              555              560
Ala Thr Leu Ser Ile Met Asp Ser Thr Phe Lys Ala Pro Ser Ala Val
      565              570              575
Ser Pro Ile Pro Ala Val Ile Pro Ser Pro Ser His Lys Pro Ser Lys
      580              585              590
Thr Lys Thr Ser Lys Ser Ser Lys Val Lys Asp Leu Ser Thr Arg Ser
      595              600              605
Asp Glu Ser Pro Ser Asn Lys Lys Arg Lys Pro Gln Ser Ser Thr Ser
  610              615              620
Ser Ser Ser Ser Ser Ser Ser Ser Ser Leu Gln Thr Ser Leu Ser Ser

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625                      630                      635                      640  
 Pro Leu Ser Gly Pro His Lys Lys Asn Cys Val Leu Asn Ala Ser Ser  
                                  645                      650                      655  
 Ala Leu Asn Ser Tyr Gln Ala Ala Pro Pro Tyr Asn Ser Leu Ser Val  
                                  660                      665                      670  
 His Asn Ser Asn Asn Gly Val Ser Pro Leu Ser Ala Lys Leu Glu Pro  
                                  675                      680                      685  
 Ser Gly Arg Thr Ser Leu Pro Gly Gly Pro Ala Asp Ile Val Arg Gln  
                                  690                      695                      700  
 Val Gly Ala Val Gly Gly Ser Ser Asp Ser Cys Pro Leu Ser Val Pro  
 705                      710                      715                      720  
 Ser Leu Ala Leu His Ala Gly Asp Leu Ser Leu Ala Ser His Asn Ala  
                                  725                      730                      735  
 Val Ser Ser Leu Pro Leu Ser Phe Asp Lys Ser Glu Gly Lys Lys Arg  
                                  740                      745                      750  
 Lys Asn Ser Ser Ser Ser Ser Lys Ala Cys Lys Ile Thr Lys Met Pro  
                                  755                      760                      765  
 Gly Met Asn Ser Val His Lys Lys Asn Pro Pro Ser Leu Leu Ala Pro  
                                  770                      775                      780  
 Val Pro Asp Pro Val Asn Ser Thr Ser Ser Arg Gln Val Gly Lys Asn  
 785                      790                      795                      800  
 Ser Ser Leu Ala Leu Ser Gln Ser Ser Pro Ser Ser Ile Ser Ser Pro  
                                  805                      810                      815  
 Gly His Ser Arg Gln Asn Thr Asn Arg Thr Gly Arg Ile Arg Thr Leu  
                                  820                      825                      830  
 Pro

&lt;210&gt; 3199

&lt;211&gt; 777

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3199

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 120  
 caagcagctc ccacagctgg cactggggaa cgtggtgaca cccagaagct tggagatgcc  
 180  
 aggaaccgca agggcccaaa gagagtgtca cagccctggc ttagggagct cctaggtctg  
 240  
 ggctgcccga agagcaaggg ctcttccttc cttctttctt ttctccttct tgctacctgc  
 300  
 aacatggcga gcaaggggca tgtctcagcc ctgtttgtga tacagctctt ttagccctgc  
 360  
 catccagtgg gtcctgagtt cttgtccggc aaccaggaag aatgaggtac ccagacaagt  
 420  
 gtagagtga caagacaaag aggagcttta ctgagtga atagctcaga ggaggccctg  
 480  
 gagagggcag ttcctcacta cagctgggtca tccgacgtct gctcagctct ggctgagcct  
 540  
 ggggcttctg tcagcctcag agagggggaa gttcatgctg actggtccat gggcgcccat  
 600

gggcaggccc agaaaaggca acacaagttc gcactccagt ccacggcact gacagcctgg  
 660  
 ccccccagcct tcagggcctc cctggcctga aggtgggcct caccagggac tcacccctt  
 720  
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 777

<210> 3200

<211> 92

<212> PRT

<213> Homo sapiens

<400> 3200

Met	Leu	Gln	Val	Ala	Arg	Arg	Arg	Lys	Glu	Arg	Arg	Lys	Glu	Glu	Pro
1				5				10					15		
Leu	Leu	Phe	Gly	Gln	Pro	Arg	Pro	Arg	Ser	Ser	Leu	Ser	Gln	Gly	Cys
			20					25					30		
Asp	Thr	Leu	Phe	Gly	Ala	Leu	Arg	Phe	Leu	Ala	Ser	Pro	Ser	Phe	Trp
			35				40					45			
Val	Ser	Pro	Arg	Ser	Pro	Val	Pro	Ala	Val	Gly	Ala	Ala	Cys	Cys	Met
			50				55				60				
Pro	Gly	Pro	Ala	Thr	Ala	Ser	Gln	Arg	Ala	Gly	Ala	Leu	Thr	Ser	Thr
					70					75					80
Trp	Ser	Cys	Leu	Pro	His	Cys	Ser	Ser	Arg	Arg	Val				
				85					90						

<210> 3201

<211> 390

<212> DNA

<213> Homo sapiens

<400> 3201

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 cccgtcgcgc ctgccccagg ctggacggaa gggccacgct gcagccgggg tgagcacagc  
 120  
 gaagccgaca gcctttggga ccgaggctcag cagctgcacc ggcgcaagaa ttccaaacac  
 180  
 agctgtggct gaagggcctg ggggtgtgca ggtcccaaac ccagtgagc ctgatcccg  
 240  
 catgggtcct gtctcctggg ggccaccttt gtgtcccgtg gtggctgacc ctgagagggg  
 300  
 gggctgtggg gatgctcaca tgacactggg gtcccagcga cagcccctcc tcacgtctgc  
 360  
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 390

<210> 3202

<211> 116

<212> PRT

<213> Homo sapiens

<400> 3202

Met Gly Thr Arg Lys Gln Leu Pro Ser Arg Leu Pro Gln Ala Gly Arg

1	5	10	15
Lys Gly His	Ala Ala Gly Val	Ser Thr Ala Lys	Pro Thr Ala Phe
	20	25	30
Gly Thr Glu	Val Ser Ser Cys Thr	Gly Ala Arg Ile	Pro Asn Thr Ala
	35	40	45
Val Ala Glu	Gly Pro Gly Gly Val	Gln Val Pro Asn	Pro Ser Glu Pro
	50	55	60
Asp Pro Asp	Met Gly Pro Val Ser	Trp Gly Pro Pro	Leu Cys Pro Val
	65	70	75
Val Ala Asp	Pro Glu Arg Glu Gly	Cys Gly Asp Ala	His Met Thr Leu
	85	90	95
Gly Ser Gln	Arg Gln Pro Leu Leu	Thr Leu Arg Val	Pro Gly Ala Ser
	100	105	110
Gln Glu Gly	Arg		
	115		

&lt;210&gt; 3203

&lt;211&gt; 1906

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3203

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120
cacggtggca gcattgagag ttggacaccc gggtccttga agtgatctct agggcccagc
180
cccaaaccg ccaccattcc gtgctgcggg gacaccatgg ctccagaaga ggacgctgga
240
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360
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420
gagaagggcc ccagtatgg cacactggag aaggcctggc atgccttttt caccggcggt
480
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540
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600
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660
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720
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780
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840
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900
gagacctgcc aggccgccga gcgccagcgg cttcttttct tcaaggatat gctgctcacc
960

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 1080  
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 1200  
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 1320  
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 1800  
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 1860  
 aaaacttgac acacaccac acacaaaaac aaaaacacca aaaaaa  
 1906

&lt;210&gt; 3204

&lt;211&gt; 424

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3204

Met	Ala	Pro	Glu	Glu	Asp	Ala	Gly	Gly	Glu	Ala	Leu	Gly	Gly	Ser	Phe
1				5					10					15	
Trp	Glu	Ala	Gly	Asn	Tyr	Arg	Arg	Thr	Val	Gln	Arg	Val	Glu	Asp	Gly
			20					25					30		
His	Arg	Leu	Cys	Gly	Asp	Leu	Val	Ser	Cys	Phe	Gln	Glu	Arg	Ala	Arg
		35					40					45			
Ile	Glu	Lys	Ala	Tyr	Ala	Gln	Leu	Ala	Asp	Trp	Ala	Arg	Lys	Trp	
		50				55				60					
Arg	Gly	Thr	Val	Glu	Lys	Gly	Pro	Gln	Tyr	Gly	Thr	Leu	Glu	Lys	Ala
65					70				75					80	
Trp	His	Ala	Phe	Phe	Thr	Ala	Ala	Glu	Arg	Leu	Ser	Ala	Leu	His	Leu
			85					90					95		
Glu	Val	Arg	Glu	Lys	Leu	Gln	Gly	Gln	Asp	Ser	Glu	Arg	Val	Arg	Ala
			100				105					110			
Trp	Gln	Arg	Gly	Ala	Phe	His	Arg	Pro	Val	Leu	Gly	Gly	Phe	Arg	Glu

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      115              120              125
Ser Arg Ala Ala Glu Asp Gly Phe Arg Lys Ala Gln Lys Pro Trp Leu
      130              135              140
Lys Arg Leu Lys Glu Val Glu Ala Ser Lys Lys Ser Tyr His Ala Ala
      145              150              155              160
Arg Lys Asp Glu Lys Thr Ala Gln Thr Arg Glu Ser His Ala Lys Ala
      165              170              175
Asp Ser Ala Val Ser Gln Glu Gln Leu Arg Lys Leu Gln Glu Arg Val
      180              185              190
Glu Arg Cys Ala Lys Glu Ala Glu Lys Thr Lys Ala Gln Tyr Glu Gln
      195              200              205
Thr Leu Ala Glu Leu His Arg Tyr Thr Pro Arg Tyr Met Glu Asp Met
      210              215              220
Glu Gln Ala Phe Glu Thr Cys Gln Ala Ala Glu Arg Gln Arg Leu Leu
      225              230              235              240
Phe Phe Lys Asp Met Leu Leu Thr Leu His Gln His Leu Asp Leu Ser
      245              250              255
Ser Ser Glu Lys Phe His Glu Leu His Arg Asp Leu His Gln Gly Ile
      260              265              270
Glu Ala Ala Ser Asp Glu Glu Asp Leu Arg Trp Trp Arg Ser Thr His
      275              280              285
Gly Pro Gly Met Ala Met Asn Trp Pro Gln Phe Glu Glu Trp Ser Leu
      290              295              300
Asp Thr Gln Arg Thr Ile Ser Arg Lys Glu Lys Gly Gly Arg Ser Pro
      305              310              315              320
Asp Glu Val Thr Leu Thr Ser Ile Val Pro Thr Arg Asp Gly Thr Ala
      325              330              335
Pro Pro Pro Gln Ser Pro Gly Ser Pro Gly Thr Gly Gln Asp Glu Glu
      340              345              350
Trp Ser Asp Glu Glu Ser Pro Arg Lys Ala Ala Thr Gly Val Arg Val
      355              360              365
Arg Ala Leu Tyr Asp Tyr Ala Gly Gln Glu Ala Asp Glu Leu Ser Phe
      370              375              380
Arg Ala Gly Glu Glu Leu Leu Lys Met Ser Glu Glu Asp Glu Gln Gly
      385              390              395              400
Trp Cys Gln Gly Gln Leu Gln Ser Gly Arg Ile Gly Leu Tyr Pro Ala
      405              410              415
Asn Tyr Val Glu Cys Val Gly Ala
      420

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&lt;210&gt; 3205

&lt;211&gt; 1482

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3205

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120
ctgttgacc ccacaggaga gccccggagc tatgtggagt ctgtggcacg gacagcggg
180
gctggacccc gagctcagga ctctgagccc aagagcttta gtgtccagc caccagggc
240

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 720  
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 1380  
 cccgacttct ccaagtactc catgccagac aacagcccg agacgcgggc taaagtgaag  
 1440  
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 1482

&lt;210&gt; 3206

&lt;211&gt; 494

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3206

Xaa Glu Met Glu Gly Thr Ser Pro Ser Ser Pro Pro Pro Ser Gly Val  
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 Arg Ser Pro Pro Gly Leu Ala Lys Thr Pro Leu Ser Ala Leu Gly Leu  
 20 25 30  
 Lys Pro His Asn Pro Ala Asp Ile Leu Leu His Pro Thr Gly Glu Pro

35	40	45
Arg Ser Tyr Val Glu Ser Val Ala Arg Thr Ala Val Ala Gly Pro Arg		
50	55	60
Ala Gln Asp Ser Glu Pro Lys Ser Phe Ser Ala Pro Ala Thr Gln Ala		
65	70	75
Tyr Gly His Glu Ile Pro Leu Arg Asn Gly Thr Leu Gly Gly Ser Phe		80
	85	90
Val Ser Pro Ser Pro Leu Ser Thr Ser Ser Pro Ile Leu Ser Ala Asp		95
	100	105
Ser Thr Ser Val Gly Ser Phe Pro Ser Gly Glu Ser Ser Asp Gln Gly		110
	115	120
Pro Arg Thr Pro Thr Gln Pro Leu Leu Glu Ser Gly Phe Arg Ser Gly		125
	130	135
Ser Leu Gly Gln Pro Ser Pro Ser Ala Gln Arg Asn Tyr Gln Ser Ser		140
145	150	155
Ser Pro Leu Pro Thr Val Gly Ser Ser Tyr Ser Ser Pro Asp Tyr Ser		160
	165	170
Leu Gln His Phe Ser Ser Ser Pro Glu Ser Gln Ala Arg Ala Gln Phe		175
	180	185
Ser Val Ala Gly Val His Thr Val Pro Gly Ser Pro Gln Ala Arg His		190
	195	200
Arg Thr Val Gly Thr Asn Thr Pro Pro Ser Pro Gly Phe Gly Trp Arg		205
	210	215
Ala Ile Asn Pro Ser Met Ala Ala Pro Ser Ser Pro Ser Leu Ser His		220
225	230	235
His Gln Met Met Gly Pro Pro Gly Thr Gly Phe His Gly Ser Thr Val		240
	245	250
Ser Ser Pro Gln Ser Ser Ala Ala Thr Thr Pro Gly Ser Pro Ser Leu		255
	260	265
Cys Arg His Pro Ala Gly Val Tyr Gln Val Ser Gly Leu His Asn Lys		270
	275	280
Val Ala Thr Thr Pro Gly Ser Pro Ser Leu Gly Arg His Pro Gly Ala		285
	290	295
His Gln Gly Asn Leu Ala Ser Gly Leu His Ser Asn Ala Ile Ala Ser		300
305	310	315
Pro Gly Ser Pro Ser Leu Gly Arg His Leu Gly Gly Ser Gly Ser Val		320
	325	330
Val Pro Gly Ser Pro Cys Leu Asp Arg His Val Ala Tyr Gly Gly Tyr		335
	340	345
Ser Thr Pro Glu Asp Arg Arg Pro Thr Leu Ser Arg Gln Ser Ser Ala		350
	355	360
Ser Gly Tyr Gln Ala Pro Ser Thr Pro Ser Phe Pro Val Ser Pro Ala		365
	370	375
Tyr Tyr Pro Gly Leu Ser Ser Pro Ala Thr Ser Pro Ser Pro Asp Ser		380
385	390	395
Ala Ala Phe Arg Gln Gly Ser Pro Thr Pro Ala Leu Pro Glu Lys Arg		400
	405	410
Arg Met Ser Val Gly Asp Arg Ala Gly Ser Leu Pro Asn Tyr Ala Thr		415
	420	425
Ile Asn Gly Lys Val Ser Ser Pro Val Ala Ser Gly Met Ser Ser Pro		430
	435	440
Ser Gly Gly Ser Thr Val Ser Phe Ser His Thr Leu Pro Asp Phe Ser		445
	450	455
Lys Tyr Ser Met Pro Asp Asn Ser Pro Glu Thr Arg Ala Lys Val Lys		460

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<210> 3209
<211> 346
<212> DNA
<213> Homo sapiens
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&lt;400&gt; 3209

tggtcctcta ggtggggcag gtaggggggc cagcttcctg cttgctggtg gttcaggtca  
60  
tgcgtccagc cttgtccctt ctgacctggg ccctaccac ggggaaatgt tcccatagca  
120  
gaagaatcag cccacagtg caggggtgtg ttagtgggga acgggctctg ggctcctgtg  
180  
ggaaccaggg accccctatc ttggtaccgg tcattggatg tatccccagc tcatgcctgt  
240  
gtctgtcttg gcccggtgtg tcacctgtg ttcattcttc tcccagccat ggcctctcaa  
300  
actgggggtt tcgtctccct atgagggggc cctggtatgt acgcgt  
346

&lt;210&gt; 3210

&lt;211&gt; 95

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3210

Met	Arg	Pro	Ala	Leu	Ser	Leu	Leu	Thr	Trp	Ala	Leu	Pro	Thr	Gly	Lys
1				5				10					15		
Cys	Ser	His	Ser	Arg	Arg	Ile	Ser	Pro	Thr	Val	Gln	Gly	Cys	Val	Ser
			20				25					30			
Gly	Glu	Arg	Ala	Leu	Gly	Ser	Cys	Gly	Asn	Gln	Gly	Pro	Pro	Ile	Leu
		35				40					45				
Val	Pro	Val	Ile	Gly	Cys	Ile	Pro	Ser	Ser	Cys	Leu	Cys	Leu	Ser	Trp
	50				55					60					
Pro	Val	Trp	Ser	Pro	Cys	Val	His	Leu	Ser	Pro	Ser	His	Gly	Leu	Ser
65				70					75					80	
Asn	Trp	Gly	Phe	Arg	Leu	Pro	Met	Arg	Gly	Ser	Trp	Tyr	Val	Arg	
			85					90					95		

&lt;210&gt; 3211

&lt;211&gt; 1728

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3211

tccggaaata taaagttgag ctaccagttt tcagaaatcc atgaagactc taccgtctgc  
60  
tggacaaaag attccaagtc gatagcccag gccaaagaaa ggcagggga caactccagt  
120  
gtttccttgg ccatcgtgca agccagtccg aaggaccagg gactctatta ctgctgcate  
180  
aagaacagct acggaaaagt gactgctgaa tttaacctca cagctgaagt tctcaaacag  
240  
ctgtcaagtc acacagaata ctaaaggatg tgaagagatt gaattcagcc aactcatctt  
300  
caaagaagac ttcctccatg acagctactt tggggggccgc ctgctgtggtc agatcgccac  
360  
ggaggagctg cactttggag aaggggttca ccgcaaagcc ttccgcagca cagtgatgca  
420

cggectcatg cctgtcttca aacctggcca tgcctgtgtg cttaaggtgc acaatgccat  
 480  
 tgcctatggg accagaaata atgatgagct catccaaagg aactacaaac tcgctgcccc  
 540  
 ggaatgctat gttcaaaata ctgccaggta ttatgccaag atctacgctg ctgaagcaca  
 600  
 gcctctggaa ggctttggag aagtacctga gatcattcct atttttctta tccatcggcc  
 660  
 tgagaacaat atcccgtatg ctacagtggg ggaggagctg attggagaat ttgtgaagta  
 720  
 ttccatcagg gatgggaaag aaataaactt cttgagaaga gaatcagaag ctggtcagaa  
 780  
 atgttgacc ttccagcact ggggtgtacca gaaaacaagt ggctgcctcc tggtgacgga  
 840  
 catgcaagg gtaggaatga agctaactga cgttggcata gcaacgctgg ctaaagggtg  
 900  
 caagggattt aaaggcaact gttccatgac cttcattgat cagtttaaag cactacacca  
 960  
 gtgtaacaag tattgcaaaa tgctgggact gaaatccctt caaaacaaca accagaaaca  
 1020  
 gaagcagccg agcattggga aaagcaaagt tcaaacaaac tctatgacag taaagaaggc  
 1080  
 agggcctgag accccaggcg aaaagaaaac ctaacgtccc cgggtaacct aatggccact  
 1140  
 ggctagcagc acacaatctc gccagggaaa atctgaggcc acacaggaga gaatatacag  
 1200  
 cctgcagaga gtgcgtggca atccttactc ccagccgact gtgcgccaag atgcttctaa  
 1260  
 acccatcacc tgctgtcttc actcaaata tttcagaaca ggatttgca ccagggttat  
 1320  
 ggggagattg aatcaacgat tgggtctcaa gacagtccat tctttatata catgttttagc  
 1380  
 atttttacca acctcacatc atgtgtatat ttgtgtattt gcacatggtt gtgctgtcga  
 1440  
 ggacctggtg ctgagaagag tctgttcaca gccaaaattc ttccactgt cattcctaac  
 1500  
 ctgggatttc tagacacatc ctgctgtgat gtaaacagaa atcacgaatt cgctcactgg  
 1560  
 atcaagttgt tccactggtg tctaatacgc tattgttgcc ggaggtgggt tctgtgacgt  
 1620  
 gaagccattt cccatcatc aacagccagt tacaattttc tgtttaatta aattcatatt  
 1680  
 taaacaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa  
 1728

<210> 3212

<211> 87

<212> PRT

<213> Homo sapiens

<400> 3212

Ser	Gly	Asn	Ile	Lys	Leu	Ser	Tyr	Gln	Phe	Ser	Glu	Ile	His	Glu	Asp
1				5				10					15		
Ser	Thr	Val	Cys	Trp	Thr	Lys	Asp	Ser	Lys	Ser	Ile	Ala	Gln	Ala	Lys

```

      20      25      30
Lys Ser Ala Gly Asp Asn Ser Ser Val Ser Leu Ala Ile Val Gln Ala
      35      40      45
Ser Pro Lys Asp Gln Gly Leu Tyr Tyr Cys Cys Ile Lys Asn Ser Tyr
      50      55      60
Gly Lys Val Thr Ala Glu Phe Asn Leu Thr Ala Glu Val Leu Lys Gln
65      70      75      80
Leu Ser Ser His Thr Glu Tyr
      85

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&lt;210&gt; 3213

&lt;211&gt; 348

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3213

```

acgcgtgaag ggggaagcggc ggggtagtaa cagattatgg gcaacagtcc ttttaattaa
60
tctaccgtca tcatggctaa tgaggactgt cccaaggctg ctgatagtcc ttttcatca
120
gataaacatg cccaactcat cttggcccaa atcaataaga tgagaaatgg acagcatttc
180
tgtgatgtgc agctgcaagt tggacaggaa agttttaaag ctcatcggct ggttttggct
240
gccagcagtc cttactttgc agctttgttc actggaggaa tgaaagagtc ctcaaaagat
300
gttggtaccga ttctaggaat tgaagcagga atctttcaga tacttcta
348

```

&lt;210&gt; 3214

&lt;211&gt; 92

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3214

```

Met Ala Asn Glu Asp Cys Pro Lys Ala Ala Asp Ser Pro Phe Ser Ser
 1      5      10      15
Asp Lys His Ala Gln Leu Ile Leu Ala Gln Ile Asn Lys Met Arg Asn
      20      25      30
Gly Gln His Phe Cys Asp Val Gln Leu Gln Val Gly Gln Glu Ser Phe
      35      40      45
Lys Ala His Arg Leu Val Leu Ala Ala Ser Ser Pro Tyr Phe Ala Ala
      50      55      60
Leu Phe Thr Gly Gly Met Lys Glu Ser Ser Lys Asp Val Val Pro Ile
65      70      75      80
Leu Gly Ile Glu Ala Gly Ile Phe Gln Ile Leu Leu
      85      90

```

&lt;210&gt; 3215

&lt;211&gt; 597

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3215

acgcgtgcgc gctccccgga ggagagggcc agccggcccc ggcttaccat cttgaacgtg  
 60  
 tgcaacactg gggacaagat ggtggagtgc cagctggaga cgcacaacca caagatgggtg  
 120  
 accttcaagt tcgacttggg cggggacgca cccgatgaaa ttgccacgta tatgggtggag  
 180  
 catgacttta tcttcgagcg cgagcgggaa acgttcatcg agcagatgaa ggatgtcatg  
 240  
 gacaaggcag aggacatgct cagcgaggac acagacgccg accgtggctc cgaccagggg  
 300  
 accagcccg caccctcag cacctgcggc ctggggaccg gggaggagag ccgacaatcc  
 360  
 caagccaacg cccccgtgta tcagcagaac gtctgcaca ccgggaagag gtggttcac  
 420  
 atctgtccgg tgcttgagcc ccccgcccc gagggccctt gaatcttcgc cccacttcc  
 480  
 tetaagctcc ctgccgccag aagccagcca agattcagcg ccctataaag accagctgtc  
 540  
 ctggaaggaa caaccagct ttctagccag tcagcagctc ctggggccagg cgggccc  
 597

<210> 3216

<211> 153

<212> PRT

<213> Homo sapiens

<400> 3216

Thr	Arg	Ala	Arg	Ser	Arg	Gln	Glu	Arg	Ala	Ser	Arg	Pro	Arg	Leu	Thr
1				5					10					15	
Ile	Leu	Asn	Val	Cys	Asn	Thr	Gly	Asp	Lys	Met	Val	Glu	Cys	Gln	Leu
		20						25					30		
Glu	Thr	His	Asn	His	Lys	Met	Val	Thr	Phe	Lys	Phe	Asp	Leu	Asp	Gly
		35					40					45			
Asp	Ala	Pro	Asp	Glu	Ile	Ala	Thr	Tyr	Met	Val	Glu	His	Asp	Phe	Ile
		50				55					60				
Leu	Gln	Ala	Glu	Arg	Glu	Thr	Phe	Ile	Glu	Gln	Met	Lys	Asp	Val	Met
65					70					75				80	
Asp	Lys	Ala	Glu	Asp	Met	Leu	Ser	Glu	Asp	Thr	Asp	Ala	Asp	Arg	Gly
				85					90					95	
Ser	Asp	Pro	Gly	Thr	Ser	Pro	Pro	His	Leu	Ser	Thr	Cys	Gly	Leu	Gly
			100					105					110		
Thr	Gly	Glu	Glu	Ser	Arg	Gln	Ser	Gln	Ala	Asn	Ala	Pro	Val	Tyr	Gln
		115					120						125		
Gln	Asn	Val	Leu	His	Thr	Gly	Lys	Arg	Trp	Phe	Ile	Ile	Cys	Pro	Val
		130				135						140			
Pro	Glu	Pro	Pro	Ala	Pro	Glu	Gly	Pro							
145						150									

<210> 3217

<211> 2570

<212> DNA

<213> Homo sapiens

<400> 3217

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120  
accataacca ggcactatga gctttacagg cgctgcaaac tggaggaaat gggctttaca  
180  
gatgtgggcc cagaaaacaa gccagtcagt gttcaagaga cctatgaagc caaaagacat  
240  
gagttccatg gtgaacgtca gaggaaggaa gaagaaatga aacagatgtt tgtgcagcga  
300  
gtaaaggaga aagaagccat attgaaagaa gctgagagag agctacaggc caaatttgag  
360  
caccttaaga gacttcacca agaagagaga atgaagcttg aagaacaaag aagacttttg  
420  
gaagaagaaa taattgcttt ctctaaaaag aaagctacct ccgagatatt tcacagccag  
480  
tcctttctgg caacaggcag caacctgagt aaggacaagg accataagaa ctccaatttt  
540  
ttgtaaaaca gaagtccag agcacagaag gtcacatca caagcaaact ttattaaaaa  
600  
aaaactagaa gtgtgctttg attttgctgt tatttgtttt atcacttcta tatttggtga  
660  
acagccacag ttactgatat ttatggaaaa gtactttcaa gtacaaggtc aatacataag  
720  
ccagagtga tgatactaca agttgagcat ctctaattca aaaatctgaa atccagaagc  
780  
ttcaaaatct gaatcttttt gagcactgac ttgacccac aagtggaaaa ttccccaccc  
840  
gacacctttg ctttctgatg gttcagttta aacagatttt gtttcttgca caaaattttt  
900  
gtataaatta ctttcaggct atatgtataa ggtggatgtg aaacatgaat tatgtaatta  
960  
gagtcgggtc ccgttggtga tatgcagata ttccaaacct gaaatccaaa acacttctgg  
1020  
tccttagcat tttggataag ggatactcag cttgtaccta tatattcata tatattcact  
1080  
gttgtagaa atgtttaagt tgcgtttctg tgatgaatct aaatcttttc tcttgctacc  
1140  
aagctattgt cactgcagtg cattatacca aagagcgaag tcagtgccac tgaaaatata  
1200  
gaaccatta atatcgtggc tatctgatta catttatatt ccaagatgaa ctttttttta  
1260  
tatatgctaa aaattttggg gaatatgttt tgggatgtat tatggagcta aaactctaac  
1320  
ctcttaatag ttttatagaa cttaaaaaatt ttttatataa ttacccaatt ggtgatatga  
1380  
tcttaagctt ttgtgtcaga ttatttaata tgatgacttc atgctttatt atgccttatt  
1440  
atggctgacg tattactgtg gtgaaacaaa atatctttaa aagttaaaac atccagatat  
1500  
ataagctatt ttttcctaag gataaagtac ctttgagcat gagtgtatca cagctttcat  
1560  
taggaaaact tttcattaca tacttgttta aactctgtct tccagggtaa aaataataag  
1620



gttgaatcat tttattaaaa atacttttta agaaaataac tatgaacatc tgaatattaa  
 1680  
 agatataaaa atgcacataa ttcataatttc aggtggtatt tgcattcagt gccttactgg  
 1740  
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 1800  
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 1860  
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 1920  
 tggtaaagga aaaaaaagag gggggaagat caggtcatac tatctactct cctcatctct  
 1980  
 aacagctcag gatctcttag cattttaatt agatgtaatt gtttgtcttt aactgtcaaa  
 2040  
 aagtttggtt ctgtgtctgt gttttaataa gacgagagga cgagcgattg aggtgtatgg  
 2100  
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 2160  
 agttgagctc tcggaactgc atgctgctgg acagtatcac tgtctttcct agatggcagt  
 2220  
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 2280  
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 2340  
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 2400  
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 2460  
 aactggggat tgggtgggca ggaaaagggtg atatccattc tttctgataa ctagatgggtg  
 2520  
 ctgagaagct tttgaataaa aactttgcta aatgaaaaaa aaaaaaaaaa  
 2570

&lt;210&gt; 3218

&lt;211&gt; 181

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3218

Gly	Val	Lys	Ala	Arg	Gln	Tyr	Pro	Trp	Gly	Val	Val	Gln	Val	Glu	Asn
1				5					10					15	
Glu	Asn	His	Cys	Asp	Phe	Val	Lys	Leu	Arg	Glu	Met	Leu	Ile	Cys	Thr
			20					25					30		
Asn	Met	Glu	Asp	Leu	Arg	Glu	Gln	Thr	His	Thr	Arg	His	Tyr	Glu	Leu
		35					40					45			
Tyr	Arg	Arg	Cys	Lys	Leu	Glu	Glu	Met	Gly	Phe	Thr	Asp	Val	Gly	Pro
		50				55					60				
Glu	Asn	Lys	Pro	Val	Ser	Val	Gln	Glu	Thr	Tyr	Glu	Ala	Lys	Arg	His
65					70					75				80	
Glu	Phe	His	Gly	Glu	Arg	Gln	Arg	Lys	Glu	Glu	Glu	Met	Lys	Gln	Met
			85					90						95	
Phe	Val	Gln	Arg	Val	Lys	Glu	Lys	Glu	Ala	Ile	Leu	Lys	Glu	Ala	Glu
			100				105					110			
Arg	Glu	Leu	Gln	Ala	Lys	Phe	Glu	His	Leu	Lys	Arg	Leu	His	Gln	Glu

	115		120		125	
Glu	Arg	Met	Lys	Leu	Glu	Glu
	130		135		140	
Ile	Ala	Phe	Ser	Lys	Lys	Lys
145				150		155
Ser	Phe	Leu	Ala	Thr	Gly	Ser
				165		170
Asn	Ser	Asn	Phe	Leu		
				180		

&lt;210&gt; 3219

&lt;211&gt; 1241

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3219

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 60  
 tcctctggac gccacgttgt ccagcccgag gtccatgtca atgggtggng cgttacatct  
 120  
 gagcgggaga cagacatcct ggacgatgaa ttgccaaacc aggatgggtca cagtgcgggc  
 180  
 agcatgggca cactctcttc tctggacggg gtcaccaaca tcagtgaggg gggctaccca  
 240  
 gaggccctgt ccccaactgac caacgggtctg gacaagtcct accccatgga gcctatggtc  
 300  
 aatggaggag gctaccctta cgagtctgcc agccggggcg ggccctgcca tgctggccac  
 360  
 acggccccca tgcggccctc ctactctgca caggaggggt tagctggcta ccagagggag  
 420  
 ggccccacc cagcctggcc acagccagt accacctccc actatgcca tgaccccgag  
 480  
 ggtatgttcc gctctcaatc cttttcgga gctgaacccc agctgcccc agctccggtc  
 540  
 cgagggggaa gcagccggga ggctgtgcaa aggggactga attcgtggca gcagcagcag  
 600  
 cagcagcagc agcagcctcg cccacctcca cgccagcagg aaagagccca cttggagagt  
 660  
 cttgtagcca gcaggccag cctcagcca ttggcagaga ccccatccc cagtctccct  
 720  
 gagttcccgc gagcagctc ccagcaggag attgaacagt ccatcgaaac actcaatatg  
 780  
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 900  
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 960  
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 1020  
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 1140

ccccagcct ctctccctgg cctcactgct cagcctctgc tctcaccaaa ggaagcgact  
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 1241

<210> 3220

<211> 413

<212> PRT

<213> Homo sapiens

<400> 3220

Ala	Arg	His	Val	Pro	His	Pro	Ala	Pro	Gln	Val	Pro	Pro	Ser	Arg	Gly
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Leu	Gly	Cys	Ala	Ser	Ser	Gly	Arg	His	Val	Val	Pro	Ala	Gln	Val	His
			20					25					30		
Val	Asn	Gly	Gly	Xaa	Val	Thr	Ser	Glu	Arg	Glu	Thr	Asp	Ile	Leu	Asp
	35					40						45			
Asp	Glu	Leu	Pro	Asn	Gln	Asp	Gly	His	Ser	Ala	Gly	Ser	Met	Gly	Thr
	50				55						60				
Leu	Ser	Ser	Leu	Asp	Gly	Val	Thr	Asn	Ile	Ser	Glu	Gly	Gly	Tyr	Pro
65					70					75				80	
Glu	Ala	Leu	Ser	Pro	Leu	Thr	Asn	Gly	Leu	Asp	Lys	Ser	Tyr	Pro	Met
			85						90					95	
Glu	Pro	Met	Val	Asn	Gly	Gly	Gly	Tyr	Pro	Tyr	Glu	Ser	Ala	Ser	Arg
			100					105						110	
Ala	Gly	Pro	Ala	His	Ala	Gly	His	Thr	Ala	Pro	Met	Arg	Pro	Ser	Tyr
	115					120						125			
Ser	Ala	Gln	Glu	Gly	Leu	Ala	Gly	Tyr	Gln	Arg	Glu	Gly	Pro	His	Pro
	130					135						140			
Ala	Trp	Pro	Gln	Pro	Val	Thr	Thr	Ser	His	Tyr	Ala	His	Asp	Pro	Ser
145					150					155				160	
Gly	Met	Phe	Arg	Ser	Gln	Ser	Phe	Ser	Glu	Ala	Glu	Pro	Gln	Leu	Pro
			165						170					175	
Pro	Ala	Pro	Val	Arg	Gly	Gly	Ser	Ser	Arg	Glu	Ala	Val	Gln	Arg	Gly
			180					185					190		
Leu	Asn	Ser	Trp	Gln	Gln	Gln	Gln	Gln	Gln	Gln	Gln	Gln	Pro	Arg	Pro
	195					200							205		
Pro	Pro	Arg	Gln	Gln	Glu	Arg	Ala	His	Leu	Glu	Ser	Leu	Val	Ala	Ser
	210					215						220			
Arg	Pro	Ser	Pro	Gln	Pro	Leu	Ala	Glu	Thr	Pro	Ile	Pro	Ser	Leu	Pro
225					230					235				240	
Glu	Phe	Pro	Arg	Ala	Ala	Ser	Gln	Gln	Glu	Ile	Glu	Gln	Ser	Ile	Glu
			245						250					255	
Thr	Leu	Asn	Met	Leu	Met	Leu	Asp	Leu	Glu	Pro	Ala	Ser	Ala	Ala	Ala
		260						265					270		
Pro	Leu	His	Lys	Ser	Gln	Ser	Val	Pro	Gly	Ala	Trp	Pro	Gly	Ala	Ser
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Pro	Leu	Ser	Ser	Gln	Pro	Leu	Ser	Gly	Ser	Ser	Arg	Gln	Ser	His	Pro
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Leu	Thr	Gln	Ser	Arg	Ser	Gly	Tyr	Ile	Pro	Ser	Gly	His	Ser	Leu	Gly
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Thr	Pro	Glu	Pro	Ala	Pro	Arg	Ala	Ser	Leu	Glu	Ser	Val	Pro	Pro	Gly
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Arg	Ser	Tyr	Ser	Pro	Tyr	Asp	Tyr	Gln	Pro	Cys	Leu	Ala	Gly	Pro	Asn

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Gln	Asp	Phe	His	Ser	Lys	Ser	Pro	Ala	Ser	Ser	Ser	Leu	Pro	Ala	Phe
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Leu	Pro	Thr	Thr	His	Ser	Pro	Pro	Gly	Pro	Gln	Gln	Pro	Pro	Ala	Ser
	370						375					380			
Leu	Pro	Gly	Leu	Thr	Ala	Gln	Pro	Leu	Leu	Ser	Pro	Lys	Glu	Ala	Thr
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Ser	Asp	Pro	Ser	Arg	Thr	Pro	Glu	Glu	Glu	Pro	Leu	Asn			
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&lt;210&gt; 3221

&lt;211&gt; 1585

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3221

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<210> 3222

<211> 331

<212> PRT

<213> Homo sapiens

<400> 3222

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			20					25					30		
Gln	Ala	Thr	Gly	Gly	Val	Glu	Pro	Ala	Gly	Trp	Lys	Glu	Met	Arg	Cys
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His	Leu	Arg	Ala	Asn	Gly	Tyr	Leu	Cys	Lys	Tyr	Gln	Phe	Glu	Val	Leu
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Cys	Pro	Ala	Pro	Arg	Pro	Gly	Ala	Ala	Ser	Asn	Leu	Ser	Tyr	Arg	Ala
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Pro	Phe	Gln	Leu	His	Ser	Ala	Ala	Leu	Asp	Phe	Ser	Pro	Pro	Gly	Thr
			85						90					95	
Glu	Val	Ser	Ala	Leu	Cys	Arg	Gly	Gln	Leu	Pro	Ile	Ser	Val	Thr	Cys
			100					105					110		
Ile	Ala	Asp	Glu	Ile	Gly	Ala	Arg	Trp	Asp	Lys	Leu	Ser	Gly	Asp	Val
		115					120					125			
Leu	Cys	Pro	Cys	Pro	Gly	Arg	Tyr	Leu	Arg	Ala	Gly	Lys	Cys	Ala	Glu
	130					135					140				
Leu	Pro	Asn	Cys	Leu	Asp	Asp	Leu	Gly	Gly	Phe	Ala	Cys	Glu	Cys	Ala
145					150					155				160	
Thr	Gly	Phe	Glu	Leu	Gly	Lys	Asp	Gly	Arg	Ser	Cys	Val	Thr	Ser	Gly
			165					170						175	
Glu	Gly	Gln	Pro	Thr	Leu	Gly	Gly	Thr	Gly	Val	Pro	Thr	Arg	Arg	Pro
			180					185					190		
Pro	Ala	Thr	Ala	Thr	Ser	Pro	Val	Pro	Gln	Arg	Thr	Trp	Pro	Ile	Arg
		195					200					205			
Val	Asp	Glu	Lys	Leu	Gly	Glu	Thr	Pro	Leu	Val	Pro	Glu	Gln	Asp	Asn
	210					215					220				
Ser	Val	Thr	Ser	Ile	Pro	Glu	Ile	Pro	Arg	Trp	Gly	Ser	Gln	Ser	Thr
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<211> 985
<212> DNA
<213> Homo sapiens
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<210> 3224

<211> 224  
 <212> PRT  
 <213> Homo sapiens

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 Val Ile Gly Val Ile Leu Gly Ala Glu Ala Ser Arg Arg Tyr Lys Lys  
 35 40 45  
 Val Ile Pro Gly Ala Glu Pro Leu Ile Cys Ala Ser Ser Leu Leu Ala  
 50 55 60  
 Thr Ala Pro Cys Leu Tyr Leu Ala Leu Val Leu Ala Pro Thr Thr Leu  
 65 70 75 80  
 Leu Ala Ser Tyr Val Phe Leu Gly Leu Gly Glu Leu Leu Leu Ser Cys  
 85 90 95  
 Asn Trp Ala Val Val Ala Asp Ile Leu Leu Ser Val Val Val Pro Arg  
 100 105 110  
 Cys Arg Gly Thr Ala Glu Ala Leu Gln Ile Thr Val Gly His Ile Leu  
 115 120 125  
 Gly Asp Ala Gly Ser Pro Tyr Leu Thr Gly Leu Ile Ser Ser Val Leu  
 130 135 140  
 Arg Pro Gly Ala Leu Thr Pro Leu Gln Arg Phe Arg Ser Leu Gln Gln  
 145 150 155 160  
 Ser Phe Leu Cys Cys Ala Phe Val Ile Ala Leu Gly Gly Gly Cys Phe  
 165 170 175  
 Leu Leu Thr Ala Leu Tyr Leu Glu Arg Asp Glu Thr Arg Ala Trp Gln  
 180 185 190  
 Pro Val Thr Gly Thr Pro Asp Ser Asn Asp Val Asp Ser Asn Asp Leu  
 195 200 205  
 Glu Arg Gln Gly Leu Leu Ser Gly Ala Gly Ala Ser Thr Glu Glu Pro  
 210 215 220

<210> 3225  
 <211> 506  
 <212> DNA  
 <213> Homo sapiens

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 180  
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 300  
 aagtgggaacc acagcctcaa cccacacaga ggatggaacc accttctgca gctaaaaata  
 360  
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 420

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<210> 3226  
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 <212> PRT  
 <213> Homo sapiens

<400> 3226  
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 Leu Arg Pro Cys Thr Phe Phe Ile Gln Glu Ala Thr Lys Asn Ser Ala  
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 Cys Phe Pro Val Pro Lys Met Pro Val Pro Cys Ala Leu Gly Glu Glu  
 35 40 45  
 Leu Val Pro Cys His Arg Gly Thr Gly Pro Ala Val Val Trp Pro Ala  
 50 55 60  
 Gln Pro Gln Gln Gly Glu Val Glu Pro Gln Pro Gln Pro Thr Gln Arg  
 65 70 75 80  
 Met Glu Pro Pro Ser Ala Ala Lys Asn Asn His Thr Ala Phe Glu Val  
 85 90 95  
 Ser His Pro Arg Cys Arg Trp Gly Cys Met Lys Leu His Glu His Gly  
 100 105 110  
 Met Ser Phe Ile Phe Arg Val Pro Arg Gly His Glu Trp Tyr Gln Asp  
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<210> 3227  
 <211> 1623  
 <212> DNA  
 <213> Homo sapiens

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 120  
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 180  
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 1623

&lt;210&gt; 3228

&lt;211&gt; 385

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3228

Met	Lys	Leu	Val	Arg	Lys	Asn	Ile	Glu	Lys	Asp	Asn	Ala	Gly	Gln	Val
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Thr	Leu	Val	Pro	Glu	Glu	Pro	Glu	Asp	Met	Trp	His	Thr	Tyr	Asn	Leu
			20					25					30		
Val	Gln	Val	Gly	Asp	Ser	Leu	Arg	Ala	Ser	Thr	Ile	Arg	Lys	Val	Gln
			35					40					45		
Thr	Glu	Ser	Ser	Thr	Gly	Ser	Val	Gly	Ser	Asn	Arg	Val	Arg	Thr	Thr
			50					55					60		
Leu	Thr	Leu	Cys	Val	Glu	Ala	Ile	Asp	Phe	Asp	Ser	Gln	Ala	Cys	Gln

65                      70                      75                      80  
 Leu Arg Val Lys Gly Thr Asn Ile Gln Glu Asn Glu Tyr Val Lys Met  
                                  85                      90                      95  
 Gly Ala Tyr His Thr Ile Glu Leu Glu Pro Asn Arg Gln Phe Thr Leu  
                                  100                      105                      110  
 Ala Lys Lys Gln Trp Asp Ser Val Val Leu Glu Arg Ile Glu Gln Ala  
                                  115                      120                      125  
 Cys Asp Pro Ala Trp Ser Ala Asp Val Ala Ala Val Val Met Gln Glu  
                                  130                      135                      140  
 Gly Leu Ala His Ile Cys Leu Val Thr Pro Ser Met Thr Leu Thr Arg  
 145                                   150                      155                      160  
 Ala Lys Val Glu Val Asn Ile Pro Arg Lys Arg Lys Gly Asn Cys Ser  
                                  165                      170                      175  
 Gln His Asp Arg Ala Leu Glu Arg Phe Tyr Glu Gln Val Val Gln Ala  
                                  180                      185                      190  
 Ile Gln Arg His Ile His Phe Asp Val Val Lys Cys Ile Leu Val Ala  
                                  195                      200                      205  
 Ser Pro Gly Phe Val Arg Glu Gln Phe Cys Asp Tyr Met Phe Gln Gln  
                                  210                      215                      220  
 Ala Val Lys Thr Asp Asn Lys Leu Leu Leu Glu Asn Arg Ser Lys Phe  
 225                                   230                      235                      240  
 Leu Gln Val His Ala Ser Ser Gly His Lys Tyr Ser Leu Lys Glu Ala  
                                  245                      250                      255  
 Leu Cys Asp Pro Thr Val Ala Ser Arg Leu Ser Asp Thr Lys Ala Ala  
                                  260                      265                      270  
 Gly Glu Val Lys Ala Leu Asp Asp Phe Tyr Lys Met Leu Gln His Glu  
                                  275                      280                      285  
 Pro Asp Arg Ala Phe Tyr Gly Leu Lys Gln Val Glu Lys Ala Asn Glu  
                                  290                      295                      300  
 Ala Met Ala Ile Asp Thr Leu Leu Ile Ser Asp Glu Leu Phe Arg His  
 305                                   310                      315                      320  
 Gln Asp Val Ala Thr Arg Ser Arg Tyr Val Arg Leu Val Asp Ser Val  
                                  325                      330                      335  
 Lys Glu Asn Ala Gly Thr Val Arg Ile Phe Ser Ser Leu His Val Ser  
                                  340                      345                      350  
 Gly Glu Gln Leu Ser Gln Leu Thr Gly Val Ala Ala Ile Leu Arg Phe  
                                  355                      360                      365  
 Pro Val Pro Glu Leu Ser Asp Gln Glu Gly Asp Ser Ser Ser Glu Glu  
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 Asp  
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&lt;210&gt; 3229

&lt;211&gt; 1008

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3229

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<210> 3230

<211> 232

<212> PRT

<213> Homo sapiens

<400> 3230

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Cys	Ser	Asp	Gly	Phe	Ala	Phe	Pro	Gln	Tyr	Pro	Ile	Lys	Pro	Tyr	His
			20					25					30		
Leu	Lys	Arg	Ile	His	Arg	Ala	Val	Leu	Arg	Gly	Asn	Leu	Glu	Glu	Leu
			35				40					45			
Lys	Tyr	Leu	Leu	Leu	Thr	Tyr	Tyr	Asp	Ile	Asn	Lys	Arg	Asp	Arg	Lys
	50					55					60				
Glu	Arg	Thr	Ala	Leu	His	Leu	Ala	Cys	Ala	Thr	Gly	Gln	Pro	Glu	Met
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Val	His	Leu	Leu	Val	Ser	Arg	Arg	Cys	Glu	Leu	Asn	Leu	Cys	Asp	Arg
				85					90					95	
Glu	Asp	Arg	Thr	Pro	Leu	Ile	Lys	Ala	Val	Gln	Leu	Arg	Gln	Glu	Ala
			100					105					110		
Cys	Ala	Thr	Leu	Leu	Leu	Gln	Asn	Gly	Ala	Asp	Pro	Asn	Ile	Thr	Asp
		115					120					125			
Val	Phe	Gly	Arg	Thr	Ala	Leu	His	Tyr	Ala	Val	Tyr	Asn	Glu	Asp	Thr
	130						135					140			
Ser	Met	Ile	Glu	Lys	Leu	Leu	Ser	His	Gly	Thr	Asn	Ile	Glu	Glu	Cys

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Ser	Lys	Asn	Glu	Tyr	Gln	Pro	Leu	Leu	Leu	Ala	Val	Ser	Arg	Arg	Lys
		165		170		175									
Val	Lys	Met	Val	Glu	Phe	Leu	Leu	Lys	Lys	Lys	Ala	Asn	Val	Asn	Ala
		180		185		190									
Ile	Asp	Tyr	Leu	Gly	Arg	Ser	Ala	Leu	Ile	Leu	Ala	Val	Thr	Leu	Gly
		195		200		205									
Glu	Lys	Asp	Ile	Val	Ile	Leu	Leu	Leu	Gln	His	Asn	Ile	Asp	Val	Phe
		210		215		220									
Ser	Arg	Asp	Val	Tyr	Gly	Lys	Leu								
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&lt;210&gt; 3231

&lt;211&gt; 1367

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3231

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1080

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<210> 3232

<211> 251

<212> PRT

<213> Homo sapiens

<400> 3232

Met	Ser	Asp	Ile	Gly	Asp	Trp	Phe	Arg	Ser	Ile	Pro	Ala	Ile	Thr	Arg
1				5					10					15	
Tyr	Trp	Phe	Ala	Ala	Thr	Val	Ala	Val	Pro	Leu	Val	Gly	Lys	Leu	Gly
			20					25					30		
Leu	Ile	Ser	Pro	Ala	Tyr	Leu	Phe	Leu	Trp	Pro	Glu	Ala	Phe	Leu	Tyr
		35					40					45			
Arg	Phe	Gln	Ile	Trp	Arg	Pro	Ile	Thr	Ala	Thr	Phe	Tyr	Phe	Pro	Val
	50					55				60					
Gly	Pro	Gly	Thr	Gly	Phe	Leu	Tyr	Leu	Val	Asn	Leu	Tyr	Phe	Leu	Tyr
65					70					75				80	
Gln	Tyr	Ser	Thr	Arg	Leu	Glu	Thr	Gly	Ala	Phe	Asp	Gly	Arg	Pro	Ala
			85					90					95		
Asp	Tyr	Leu	Phe	Met	Leu	Leu	Phe	Asn	Trp	Ile	Cys	Ile	Val	Ile	Thr
		100						105					110		
Gly	Leu	Ala	Met	Asp	Met	Gln	Leu	Met	Ile	Pro	Leu	Ile	Met	Ser	
		115				120					125				
Val	Leu	Tyr	Val	Trp	Ala	Gln	Leu	Asn	Arg	Asp	Met	Ile	Val	Ser	Phe
	130					135					140				
Trp	Phe	Gly	Thr	Arg	Phe	Lys	Ala	Cys	Tyr	Leu	Pro	Trp	Val	Ile	Leu
145					150					155				160	
Gly	Phe	Asn	Tyr	Ile	Ile	Gly	Gly	Ser	Val	Ile	Asn	Glu	Leu	Ile	Gly
			165					170					175		
Asn	Leu	Val	Gly	His	Leu	Tyr	Phe	Phe	Leu	Met	Phe	Arg	Tyr	Pro	Met
		180						185					190		
Asp	Leu	Gly	Gly	Arg	Asn	Phe	Leu	Ser	Thr	Pro	Gln	Phe	Leu	Tyr	Arg
		195					200					205			
Trp	Leu	Pro	Ser	Arg	Arg	Gly	Gly	Val	Ser	Gly	Phe	Gly	Val	Pro	Pro
	210					215					220				
Ala	Ser	Met	Arg	Arg	Ala	Ala	Asp	Gln	Asn	Gly	Gly	Gly	Gly	Arg	His
225					230					235				240	
Asn	Trp	Gly	Gln	Gly	Phe	Arg	Leu	Gly	Asp	Gln					
			245						250						

<210> 3233

<211> 975

<212> DNA

<213> Homo sapiens

&lt;400&gt; 3233

nacgcgtacg tgggtggagct ctgcgtgttt actatTTTTg gaaatgaaga aaatggaaag  
 60  
 accgttgttt accttgtggc ttcccatctg ttctttgtta tgtttgtatg gtccatttgg  
 120  
 atgacaattt tcacatctcc cgcttcccc tccaaagagt tctacttgtc caattctgaa  
 180  
 aaggaacgtt atgaaaaaga attcagccaa gaaagacaac aagaaatttt gagaagagca  
 240  
 gcaagagctt tacctatcta taccacatca gcttcaaaaa ctatcagata ttgtgaaaaa  
 300  
 tgtcagctga ttaaacctga tcgggcgcac cactgctcag cctgtgactc atgtattctt  
 360  
 aagatggatc atccctgtcc ttgggtgaat aactgtgtgg gatttttctaa ttacaaattc  
 420  
 ttccctgtgt ttttattgta ttccctatta tattgccttt tcgtggccgc acagttttag  
 480  
 agtacttaaa aaattttgga cgaaagaacc gacaaaaacc cgggcaaaa ttccacgtac  
 540  
 tttttcttt tctttgtgtc tgcaatgttc ttcacagcg tcctctcact ttccagctac  
 600  
 cactgctggc tttaaacagc attgtccaca gctccgtctg cagggtcagg gcatggcctc  
 660  
 tctccgtgtt cctgtgaaga gccttcattg gaatcatccc gggacataca gcttgaatgt  
 720  
 gctgtctggc tagccctccc acaagtcggt cactctgcac aaggaatccg agagctcatc  
 780  
 aaggatcagc acggtctggg gcccggtgg ggtggaacac gcacggtcca caagcaattc  
 840  
 tgtctttctc aaggcttttt ctgtgtcagt atgaaatcct tcatatttca tatgaagtat  
 900  
 gtgccttctg gggcactgag ctcaggaact ccaaaaagac cccttcgggc cggatcccg  
 960  
 cttcaaggct gcccc  
 975

&lt;210&gt; 3234

&lt;211&gt; 159

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3234

Xaa	Ala	Tyr	Val	Val	Glu	Leu	Cys	Val	Phe	Thr	Ile	Phe	Gly	Asn	Glu
1				5					10					15	
Glu	Asn	Gly	Lys	Thr	Val	Val	Tyr	Leu	Val	Ala	Phe	His	Leu	Phe	Phe
		20					25					30			
Val	Met	Phe	Val	Trp	Ser	Tyr	Trp	Met	Thr	Ile	Phe	Thr	Ser	Pro	Ala
	35					40					45				
Ser	Pro	Ser	Lys	Glu	Phe	Tyr	Leu	Ser	Asn	Ser	Glu	Lys	Glu	Arg	Tyr
	50				55					60					
Glu	Lys	Glu	Phe	Ser	Gln	Glu	Arg	Gln	Gln	Glu	Ile	Leu	Arg	Arg	Ala
65				70					75				80		
Ala	Arg	Ala	Leu	Pro	Ile	Tyr	Thr	Thr	Ser	Ala	Ser	Lys	Thr	Ile	Arg

			85					90					95				
Tyr	Cys	Glu	Lys	Cys	Gln	Leu	Ile	Lys	Pro	Asp	Arg	Ala	His	His	Cys		
			100					105					110				
Ser	Ala	Cys	Asp	Ser	Cys	Ile	Leu	Lys	Met	Asp	His	Pro	Cys	Pro	Trp		
		115					120					125					
Val	Asn	Asn	Cys	Val	Gly	Phe	Ser	Asn	Tyr	Lys	Phe	Phe	Leu	Leu	Phe		
	130					135					140						
Leu	Leu	Tyr	Ser	Leu	Leu	Tyr	Cys	Leu	Phe	Val	Ala	Ala	Gln	Phe			
145					150					155							

&lt;210&gt; 3235

&lt;211&gt; 551

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3235

```

ntggaaactg agcttcaaac atataagcat tctcgtcagg ggctagatga aatgtacaat
60
gaagccagaa ggcagcttcg agatgaatct cagttacgac aggatgtaga gaatgagcta
120
gcagtacaag ttagtatgaa gcatgagatt gaacttgcca tgaagttgct ggagaaagat
180
atccatgaga aacaagatac tctgataggc cttcgacaac aactagagga agttaagca
240
attaacatag agatgtatca aaagttgcag ggttctgaag atggcttgaa agaaaaaat
300
gaaataattg cccgactaga agaaaaaacc aataaaatta ctgcagccat gaggcagctg
360
gaacaaagat tgcagcaagc agagaaggcg caaatggaag ctgaagatga ggatgagaaa
420
tatctacaag aatgtctcag taaatctgat agtctgcaga aacaaatctc ccaaaaggag
480
aaacagctgg tgcaactgga aactgacttg aagattgaga aggaatggag gcagactttg
540
caggaagatc t
551

```

&lt;210&gt; 3236

&lt;211&gt; 183

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3236

Xaa	Glu	Thr	Glu	Leu	Gln	Thr	Tyr	Lys	His	Ser	Arg	Gln	Gly	Leu	Asp		
1				5				10					15				
Glu	Met	Tyr	Asn	Glu	Ala	Arg	Arg	Gln	Leu	Arg	Asp	Glu	Ser	Gln	Leu		
		20					25					30					
Arg	Gln	Asp	Val	Glu	Asn	Glu	Leu	Ala	Val	Gln	Val	Ser	Met	Lys	His		
		35				40					45						
Glu	Ile	Glu	Leu	Ala	Met	Lys	Leu	Leu	Glu	Lys	Asp	Ile	His	Glu	Lys		
	50				55				60								
Gln	Asp	Thr	Leu	Ile	Gly	Leu	Arg	Gln	Gln	Leu	Glu	Glu	Val	Lys	Ala		
65				70				75					80				
Ile	Asn	Ile	Glu	Met	Tyr	Gln	Lys	Leu	Gln	Gly	Ser	Glu	Asp	Gly	Leu		

	85		90		95										
Lys	Glu	Lys	Asn	Glu	Ile	Ile	Ala	Arg	Leu	Glu	Glu	Lys	Thr	Asn	Lys
	100							105					110		
Ile	Thr	Ala	Ala	Met	Arg	Gln	Leu	Glu	Gln	Arg	Leu	Gln	Gln	Ala	Glu
	115						120					125			
Lys	Ala	Gln	Met	Glu	Ala	Glu	Asp	Glu	Asp	Glu	Lys	Tyr	Leu	Gln	Glu
	130					135				140					
Cys	Leu	Ser	Lys	Ser	Asp	Ser	Leu	Gln	Lys	Gln	Ile	Ser	Gln	Lys	Glu
	145				150				155				160		
Lys	Gln	Leu	Val	Gln	Leu	Glu	Thr	Asp	Leu	Lys	Ile	Glu	Lys	Glu	Trp
		165						170					175		
Arg	Gln	Thr	Leu	Gln	Glu	Asp									
		180													

&lt;210&gt; 3237

&lt;211&gt; 1323

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3237

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nctctgggct gcgacctacc tcgcagaggg gtttgacta aggcgctggg cgccgggctc
60
cgggcgctgt ggaccatggc tccgcccgcg gcgcctggcc gggaccgtgt gggccgtgag
120
gatgaggacc gttgggaagt acggggggac cgcaaggccc ggaagcccct ggtggagaag
180
aagcgacgcg cgcggatcaa cgagagtctt caggagtgtg ggctgctgct ggcggggcgcc
240
gaggtgcagg ccaagctgga gaacgccgaa gtgctggagc tgacgggtgcg gcgggtccag
300
ggtgtgctgc ggggcccggc gcgcgagcgc gagcagctgc aggcggaagc gagcgagcgc
360
ttcgctgccg gctacatcca gtgcatgcac gaggtgcaca cgttcgtgtc cacgtgccag
420
gccatcgacg ctaccgtcgc tgccgagctc ctgaaccatc tgctcgagtc catgccgtg
480
cgtgagggca gcagcttcca ggatctgctg ggggacgccc tggcggggcc acctagagcc
540
cctggacgga gtggctggcc tgcggggggc gctccgggat cccaatacc cagccccccg
600
ggtcctgggg acgacctgtg ctccgacctg gaggaggccc ctgaggctga actgagtcag
660
gctcctgctg agggggccga cttggtgccc gcagccctgg gcagcctgac cacagcccaa
720
attgcccgga gtgtctggag gccttggtga ccaatgccag ccagagtcct gcgggggtgg
780
gcccggccct ccctggatct cctccctcct ccagggggt cagatgtggt ggggtagggc
840
cctggaagtc tcccaggtct tccctccctc ctctgatgga tggcttgacg ggcagcccc
900
ggtaaccagc ccagtcaggc ccagccccg tttcttaaga aacttttagg gaccctgcag
960
ctctggagtg ggtggaggga gggagctacg ggcaggagga agaattttgt agagctgcca
1020

```



gcgctctccc aggttcaccc acccaggctt caccagccct gtgcgggctc tgggggcaga  
 1080  
 ggtggcagaa atggtgctgg gcactagtgt tccaggcagc cctgggctaa acaaaaagctt  
 1140  
 gaacttgcca cttcagcggg gagatgagag gcagggtcac tcagctgcac tgcccagagc  
 1200  
 tgtgatgctc tgtacatctt gttttagtca cacttgagtt tgtgtattcc attgacatca  
 1260  
 aatgtgacaa ttttactaaa taaagaattt tggagttagt tacccttgaa aaaaaagtcg  
 1320  
 acg  
 1323

<210> 3238

<211> 249

<212> PRT

<213> Homo sapiens

<400> 3238

Xaa	Leu	Gly	Cys	Asp	Leu	Pro	Arg	Arg	Gly	Val	Cys	Thr	Lys	Ala	Leu
1			5						10					15	
Gly	Ala	Gly	Leu	Arg	Ala	Leu	Trp	Thr	Met	Ala	Pro	Pro	Ala	Ala	Pro
			20					25					30		
Gly	Arg	Asp	Arg	Val	Gly	Arg	Glu	Asp	Glu	Asp	Arg	Trp	Glu	Val	Arg
		35					40					45			
Gly	Asp	Arg	Lys	Ala	Arg	Lys	Pro	Leu	Val	Glu	Lys	Lys	Arg	Arg	Ala
	50					55					60				
Arg	Ile	Asn	Glu	Ser	Leu	Gln	Glu	Leu	Arg	Leu	Leu	Leu	Ala	Gly	Ala
65					70					75				80	
Glu	Val	Gln	Ala	Lys	Leu	Glu	Asn	Ala	Glu	Val	Leu	Glu	Leu	Thr	Val
			85					90						95	
Arg	Arg	Val	Gln	Gly	Val	Leu	Arg	Gly	Arg	Ala	Arg	Glu	Arg	Glu	Gln
			100					105					110		
Leu	Gln	Ala	Glu	Ala	Ser	Glu	Arg	Phe	Ala	Ala	Gly	Tyr	Ile	Gln	Cys
		115					120					125			
Met	His	Glu	Val	His	Thr	Phe	Val	Ser	Thr	Cys	Gln	Ala	Ile	Asp	Ala
	130					135					140				
Thr	Val	Ala	Ala	Glu	Leu	Leu	Asn	His	Leu	Leu	Glu	Ser	Met	Pro	Leu
145					150					155				160	
Arg	Glu	Gly	Ser	Ser	Phe	Gln	Asp	Leu	Leu	Gly	Asp	Ala	Leu	Ala	Gly
			165					170					175		
Pro	Pro	Arg	Ala	Pro	Gly	Arg	Ser	Gly	Trp	Pro	Ala	Gly	Gly	Ala	Pro
			180					185					190		
Gly	Ser	Pro	Ile	Pro	Ser	Pro	Pro	Gly	Pro	Gly	Asp	Asp	Leu	Cys	Ser
		195					200					205			
Asp	Leu	Glu	Glu	Ala	Pro	Glu	Ala	Glu	Leu	Ser	Gln	Ala	Pro	Ala	Glu
	210					215					220				
Gly	Pro	Asp	Leu	Val	Pro	Ala	Ala	Leu	Gly	Ser	Leu	Thr	Thr	Ala	Gln
225					230					235				240	
Ile	Ala	Arg	Ser	Val	Trp	Arg	Pro	Trp							
				245											

<210> 3239

<211> 432

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3239

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aaaaccaaag attctcctgg agttttctct aaactgggtg ttctcctgag gagagtgaca
60
agaaacttgg tgagaaataa gctggcagtg attacgcgtc tccttcagaa tctgatcatg
120
ggtttggtcc tccttttctt cgttctgcgg gtccgaagca atgtgctaaa gggtgctatc
180
caggaccgcg taggtctcct ttaccagttt gtgggcgcca ccccgtaac aggcatgctg
240
aacgctgtga atctgtttcc cgtgctgcga gctgtcagcg accaggagag tcaggacggc
300
ctctaccaga agtggcagat gatgctggcc tatgactgc acgtcctccc cttcagcggt
360
gttgccacca tgattttcag cagtgtgtgc tactggacgc tgggcttaca tctgaggtt
420
gcccgattgg gt
432

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&lt;210&gt; 3240

&lt;211&gt; 144

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3240

```

Lys Thr Lys Asp Ser Pro Gly Val Phe Ser Lys Leu Gly Val Leu Leu
1      5      10      15
Arg Arg Val Thr Arg Asn Leu Val Arg Asn Lys Leu Ala Val Ile Thr
20     25     30
Arg Leu Leu Gln Asn Leu Ile Met Gly Leu Phe Leu Leu Phe Phe Val
35     40     45
Leu Arg Val Arg Ser Asn Val Leu Lys Gly Ala Ile Gln Asp Arg Val
50     55     60
Gly Leu Leu Tyr Gln Phe Val Gly Ala Thr Pro Tyr Thr Gly Met Leu
65     70     75     80
Asn Ala Val Asn Leu Phe Pro Val Leu Arg Ala Val Ser Asp Gln Glu
85     90     95
Ser Gln Asp Gly Leu Tyr Gln Lys Trp Gln Met Met Leu Ala Tyr Ala
100    105    110
Leu His Val Leu Pro Phe Ser Val Val Ala Thr Met Ile Phe Ser Ser
115    120    125
Val Cys Tyr Trp Thr Leu Gly Leu His Pro Glu Val Ala Arg Leu Gly
130    135    140

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&lt;210&gt; 3241

&lt;211&gt; 492

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3241

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gtggaatttt tttagacaaa gtctcaaaaa acaacaaac aaacaaaagg taagataaat
60

```

acgaaataca aaataagagg caggaagagc ccaaagcatc agaaatgtgc cagttataat  
 120  
 gggccaaaat cccctcttgt gtctccagaa gtatttgaaa aatacgttag gatctgcctc  
 180  
 acagacatgc tcccaggaca ctgcacagca aggaggtacg gcgggcccag ccagccaagg  
 240  
 cagaggagga catcactgcc acagcagggg gcctgactgg cagcaaaagg gacgactccg  
 300  
 gcgaaaagtc agcaggaaac aggacagggg ctggaccaat ggcctccctc agccccacac  
 360  
 cccaccagg caggagcggg gcctggcccg gggcaggcgg gtgggagagc tctactgagt  
 420  
 ggcagcaggg catggcccct gatgctgcag gtaccaggc tgcagctgca gaaacctcag  
 480  
 tgggaacca gg  
 492

&lt;210&gt; 3242

&lt;211&gt; 107

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3242

Met	Gly	Gln	Asn	Pro	Leu	Leu	Cys	Leu	Gln	Lys	Tyr	Leu	Lys	Asn	Thr
1				5					10					15	
Leu	Gly	Ser	Ala	Ser	Gln	Thr	Cys	Ser	Gln	Asp	Thr	Arg	Gln	Gln	Gly
		20					25					30			
Gly	Thr	Ala	Gly	Pro	Ala	Ser	Gln	Gly	Arg	Gly	Gly	His	His	Cys	His
		35				40					45				
Ser	Arg	Gly	Pro	Asp	Trp	Gln	Gln	Lys	Gly	Arg	Leu	Arg	Arg	Lys	Val
	50					55				60					
Ser	Arg	Lys	Gln	Asp	Arg	Gly	Trp	Thr	Asn	Gly	Leu	Pro	Gln	Pro	His
65				70					75					80	
Thr	Pro	Pro	Arg	Gln	Glu	Arg	Cys	Leu	Ala	Arg	Gly	Arg	Arg	Val	Gly
			85					90						95	
Glu	Leu	Thr	Glu	Trp	Ala	Ala	Gly	His	Gly	Pro					
			100					105							

&lt;210&gt; 3243

&lt;211&gt; 944

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3243

gatctgcatt ttcaagtggc caaagaccgc tatggagggc agccactttt ctgagagaag  
 60  
 ttccccaccc tttgggtctgg ggcaaggagt acttacggag tgacaaaggg aaaagtctgc  
 120  
 tttgaggcaa aggtaaccca gaatctccca atgaaagaag gctgcacaga ggtctctctc  
 180  
 cttcgagttg ggtgggtctgt tgatttttcc cgtccacagc ttggtgaaga tgaattctct  
 240  
 tacggtttcg atggacgagg actcaaggca gaaaatggac aatttgagga atttggccag  
 300

acttttgggg agaatgatgt tattggctgc ttgctaatt ttgagactga agaagtagaa  
 360  
 ctttccttct ccaagaatgg agaagaccta ggtgtggcat tctggatcag caaggattcc  
 420  
 ctggcagacc gggcccttct accccatgtc ctctgcaaaa attgtgttgt agaattaaac  
 480  
 ttcggtcaga aggaggagcc cttcttccca ccaccagaag agtttgtgtt cattcatgct  
 540  
 gtgcctgttg aggagcgtgt acgcactgca gtccctccca agaccataga ggaatgtgag  
 600  
 gtgattctga tgggtgggact acccggtatct ggaaagaccc agtgggcact gaaatatgca  
 660  
 aaagaaaacc ctgagaaaag atacaatgtc ctgggagctg agactgtgct caatcaaag  
 720  
 aggatgaagg gtctcgagga gccagagatg gaccccaaaa gccgagacct tttagtccag  
 780  
 caagcctccc agtgccttag taagctgggc cagattgctt cccggacaaa gaggaacttt  
 840  
 attcttgatc agtgtaatgt gtacaattct ggccaacggc ggaagctatt gctgttcaag  
 900  
 acctctcttc ggaaagtggg ggtggttgct cctaattgagg aaga  
 944

&lt;210&gt; 3244

&lt;211&gt; 314

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3244

Asp	Leu	His	Phe	Gln	Val	Ser	Lys	Asp	Arg	Tyr	Gly	Gly	Gln	Pro	Leu
1				5				10					15		
Phe	Ser	Glu	Lys	Phe	Pro	Thr	Leu	Trp	Ser	Gly	Ala	Arg	Ser	Thr	Tyr
			20					25					30		
Gly	Val	Thr	Lys	Gly	Lys	Val	Cys	Phe	Glu	Ala	Lys	Val	Thr	Gln	Asn
			35				40						45		
Leu	Pro	Met	Lys	Glu	Gly	Cys	Thr	Glu	Val	Ser	Leu	Leu	Arg	Val	Gly
			50			55					60				
Trp	Ser	Val	Asp	Phe	Ser	Arg	Pro	Gln	Leu	Gly	Glu	Asp	Glu	Phe	Ser
65					70					75				80	
Tyr	Gly	Phe	Asp	Gly	Arg	Gly	Leu	Lys	Ala	Glu	Asn	Gly	Gln	Phe	Glu
				85				90						95	
Glu	Phe	Gly	Gln	Thr	Phe	Gly	Glu	Asn	Asp	Val	Ile	Gly	Cys	Phe	Ala
			100					105					110		
Asn	Phe	Glu	Thr	Glu	Glu	Val	Glu	Leu	Ser	Phe	Ser	Lys	Asn	Gly	Glu
			115				120					125			
Asp	Leu	Gly	Val	Ala	Phe	Trp	Ile	Ser	Lys	Asp	Ser	Leu	Ala	Asp	Arg
			130			135					140				
Ala	Leu	Leu	Pro	His	Val	Leu	Cys	Lys	Asn	Cys	Val	Val	Glu	Leu	Asn
145					150					155				160	
Phe	Gly	Gln	Lys	Glu	Pro	Phe	Phe	Pro	Pro	Pro	Glu	Glu	Phe	Val	
			165					170					175		
Phe	Ile	His	Ala	Val	Pro	Val	Glu	Glu	Arg	Val	Arg	Thr	Ala	Val	Pro
			180					185					190		
Pro	Lys	Thr	Ile	Glu	Glu	Cys	Glu	Val	Ile	Leu	Met	Val	Gly	Leu	Pro

195	200	205
Gly Ser Gly Lys Thr Gln Trp Ala Leu Lys Tyr Ala Lys Glu Asn Pro		
210	215	220
Glu Lys Arg Tyr Asn Val Leu Gly Ala Glu Thr Val Leu Asn Gln Met		
225	230	235
Arg Met Lys Gly Leu Glu Glu Pro Glu Met Asp Pro Lys Ser Arg Asp		240
	245	250
Leu Leu Val Gln Gln Ala Ser Gln Cys Leu Ser Lys Leu Val Gln Ile		255
	260	265
Ala Ser Arg Thr Lys Arg Asn Phe Ile Leu Asp Gln Cys Asn Val Tyr		270
	275	280
Asn Ser Gly Gln Arg Arg Lys Leu Leu Leu Phe Lys Thr Phe Ser Arg		285
	290	295
Lys Val Val Val Val Val Pro Asn Glu Glu		300
305	310	

&lt;210&gt; 3245

&lt;211&gt; 980

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3245

```

tggtatgagg gttctccctc caggccggga ctgacaccac tggccaggaa gtggctgaag
60
ctcagctgga tgaggatggg gatttggacg tggtgagaag accacgagcc gcctctgatt
120
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<212> PRT

<213> Homo sapiens

<400> 3246

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<400> 3248

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&lt;210&gt; 3249

&lt;211&gt; 4487

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3249

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<212> PRT

<213> Homo sapiens

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&lt;210&gt; 3251

&lt;211&gt; 2595

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3251

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 <211> 254  
 <212> PRT  
 <213> Homo sapiens

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 Leu Glu Asp Val Ser Arg Gly Gly Ser Pro Phe Ala Ile Val Ile Thr  
 50 55 60  
 Gln Gln His Gln Ile His Arg Ser Cys Thr Val Asn Ile Met Phe Gly  
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 Thr Pro Gln Glu His Arg Asn Met Pro Gln Ala Asp Ala Met Val Leu  
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 Val Ala Arg Asn Tyr Glu Arg Tyr Lys Asn Glu Cys Arg Glu Lys Glu  
 100 105 110  
 Arg Glu Glu Ile Ala Arg Gln Ala Lys Met Ala Asp Glu Ala Ile  
 115 120 125  
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 His Pro Pro Ala Ile Gln Ser Leu Ile Asn Leu Leu Ala Asp Asn Arg  
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 Tyr Leu Thr Ala Glu Glu Thr Asp Lys Ile Ile Asn Tyr Leu Arg Glu  
 165 170 175  
 Arg Lys Glu Arg Leu Met Arg Ser Ser Thr Asp Ser Leu Pro Gly Glu  
 180 185 190  
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 195 200 205  
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&lt;210&gt; 3254

&lt;211&gt; 180

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3254

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Tyr	Gln	Ser	Ser	His	Met	Val	Asp	Tyr	Gln	Pro	Tyr	Arg	Lys	His	Lys
		20					25					30			
Tyr	Ser	Arg	Val	Thr	Pro	Gln	Glu	Gln	Ala	Lys	Leu	Asp	Ala	Gln	Leu
		35				40					45				
Arg	Asp	Lys	Glu	Phe	Tyr	Arg	Pro	Ile	Pro	Asn	Pro	Asn	Pro	Lys	Leu
	50				55				60						
Thr	Asp	Gly	Tyr	Pro	Ala	Phe	Lys	Arg	Pro	His	Met	Thr	Ala	Lys	Asp
65				70				75					80		
Leu	Gly	Leu	Pro	Gly	Phe	Phe	Pro	Ser	Gln	Glu	His	Glu	Ala	Thr	Arg
			85				90					95			
Glu	Asp	Glu	Arg	Lys	Phe	Thr	Ser	Thr	Cys	His	Phe	Thr	Tyr	Pro	Ala
		100				105						110			
Ser	His	Asp	Leu	His	Leu	Ala	Gln	Gly	Asp	Pro	Asn	Gln	Val	Leu	Gln
	115				120						125				
Ser	Ala	Asp	Phe	Pro	Cys	Leu	Val	Asp	Pro	Lys	His	Gln	Pro	Ala	Ala
	130				135					140					
Glu	Met	Ala	Lys	Gly	Tyr	Leu	Leu	Leu	Pro	Gly	Cys	Pro	Cys	Leu	His
145				150				155					160		
Cys	His	Ile	Val	Lys	Val	Pro	Ile	Leu	Asn	Arg	Trp	Gly	Pro	Leu	Met
			165				170					175			
Pro	Phe	Tyr	Gln												
			180												

&lt;210&gt; 3255

&lt;211&gt; 724

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3255



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 180  
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 420  
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 480  
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<210> 3256

<211> 169

<212> PRT

<213> Homo sapiens

<400> 3256

Ser	Cys	Leu	Gln	Thr	Arg	Glu	Glu	Ile	Leu	Ala	Asp	Thr	Ser	Gln	Leu
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Ala	Ala	Asn	Pro	Glu	Gly	Ser	Ala	Glu	Pro	Arg	Lys	Glu	Tyr	Glu	Gly
		20						25				30			
Gly	Arg	Asn	Glu	Ala	Gly	Glu	Arg	His	Gly	Arg	Gly	Arg	Ala	Arg	Leu
		35					40				45				
Pro	Asn	Gly	Asp	Thr	Tyr	Glu	Gly	Ser	Tyr	Glu	Phe	Gly	Lys	Arg	His
	50					55				60					
Gly	Gln	Gly	Ile	Tyr	Lys	Phe	Lys	Asn	Gly	Ala	Arg	Tyr	Ile	Gly	Glu
65					70				75					80	
Tyr	Val	Arg	Asn	Lys	Lys	His	Gly	Gln	Gly	Thr	Phe	Ile	Tyr	Pro	Asp
			85				90						95		
Gly	Ser	Arg	Tyr	Glu	Gly	Glu	Trp	Ala	Asn	Asp	Leu	Arg	His	Gly	His
		100					105				110				
Gly	Val	Tyr	Tyr	Tyr	Ile	Asn	Asn	Asp	Thr	Tyr	Thr	Gly	Glu	Trp	Phe
		115				120					125				
Ala	His	Gln	Arg	His	Gly	Gln	Gly	Thr	Tyr	Leu	Tyr	Ala	Glu	Thr	Gly
	130				135					140					
Ser	Lys	Tyr	Val	Gly	Thr	Trp	Val	Asn	Gly	Gln	Gln	Glu	Gly	Thr	Ala
145					150				155					160	
Glu	Leu	Ile	His	Leu	Asn	His	Arg	Tyr							

165

&lt;210&gt; 3257

&lt;211&gt; 368

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3257

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tggcgcgc
368

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&lt;210&gt; 3258

&lt;211&gt; 122

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3258

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Xaa Pro Gly Tyr Ile Asp Ser Pro Thr Tyr Ser Arg Gln Gly Met Ser
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Pro Thr Phe Ser Arg Ser Pro His His Tyr Tyr Arg Ser Gly Asp Leu
20          25          30
Ser Thr Ala Thr Lys Ser Glu Thr Ser Glu Asp Ile Ser Gln Thr Ser
35          40          45
Lys Tyr Ser Pro Ile Tyr Ser Pro Asp Pro Tyr Tyr Ala Ser Glu Ser
50          55          60
Glu Tyr Trp Thr Tyr His Gly Ser Pro Lys Val Pro Arg Ala Arg Arg
65          70          75          80
Phe Ser Ser Gly Gly Glu Glu Asp Asp Phe Asp Arg Ser Met His Lys
85          90          95
Leu Gln Ser Gly Ile Gly Arg Leu Ile Leu Lys Glu Glu Met Lys Ala
100         105         110
Arg Ser Ser Ser Tyr Ala Asp Pro Trp Arg
115         120

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&lt;210&gt; 3259

&lt;211&gt; 747

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3259

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<211> 197

<212> PRT

<213> Homo sapiens

<400> 3260

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			20					25					30		
Gly	Ser	Glu	Val	Asp	Arg	Val	Ile	Leu	Lys	Ala	Asn	Glu	Thr	Phe	Ala
			35				40					45			
Phe	Val	Gly	Asn	Val	Thr	His	Tyr	Ala	Gln	Val	Trp	Leu	Asn	Ile	Ser
			50				55				60				
Ala	Glu	Ile	Arg	Ser	Phe	Leu	Glu	Gln	Gly	Arg	Leu	Gln	Gln	His	Leu
65					70				75					80	
Arg	Trp	Leu	Gln	Gln	Tyr	Val	Ala	Glu	Leu	Arg	Leu	His	Pro	Glu	Ala
			85					90					95		
Leu	Asn	Leu	Ser	Leu	Asp	Glu	Leu	Pro	Pro	Ala	Leu	Arg	Gln	Asp	Asn
			100					105					110		
Phe	Ser	Leu	Pro	Ser	Gly	Met	Ala	Leu	Leu	Gln	Gln	Leu	Asp	Thr	Ile
			115				120					125			
Asp	Asn	Ala	Ala	Cys	Gly	Trp	Ile	Gln	Phe	Met	Ser	Lys	Val	Ser	Val
			130				135				140				
Asp	Ile	Phe	Lys	Gly	Phe	Pro	Asp	Glu	Glu	Ser	Ile	Val	Asn	Tyr	Thr
145					150					155				160	
Leu	Asn	Gln	Ala	Tyr	Gln	Asp	Asn	Val	Thr	Val	Phe	Ala	Ser	Val	Ile
			165					170					175		
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<210> 3261  
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<212> DNA  
<213> Homo sapiens

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<210> 3262

<211> 81

<212> PRT

<213> Homo sapiens

<400> 3262

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      20             25             30
Glu Phe Asp Lys Phe Leu Glu Glu Arg Ala Lys Ala Ala Glu Met Val
      35             40             45
Pro Asp Leu Pro Ser Pro Pro Met Glu Ala Pro Ala Pro Ala Ser Asn
      50             55             60
Pro Ser Gly Arg Lys Lys Pro Glu Arg Ser Glu Asp Ala Leu Phe Ala
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<210> 3263

<211> 1128

<212> DNA

<213> Homo sapiens

<400> 3263

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780

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<210> 3264  
 <211> 308  
 <212> PRT  
 <213> Homo sapiens

<400> 3264  
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 35 40 45  
 Ser Ala Lys Lys Pro Gln Ser Ser Ser Thr Glu Pro Ala Arg Lys Pro  
 50 55 60  
 Gly Gln Lys Glu Lys Arg Val Arg Pro Glu Glu Lys Gln Gln Ala Lys  
 65 70 75 80  
 Pro Val Lys Val Glu Arg Thr Arg Lys Arg Ser Glu Gly Phe Ser Met  
 85 90 95  
 Asp Arg Lys Val Glu Lys Lys Lys Glu Pro Ser Val Glu Glu Lys Leu  
 100 105 110  
 Gln Lys Leu His Ser Glu Ile Lys Phe Ala Leu Lys Val Asp Ser Pro  
 115 120 125  
 Asp Val Lys Gly Cys Leu Asn Ala Leu Glu Glu Leu Gly Thr Leu Gln  
 130 135 140  
 Val Thr Ser Gln Ile Leu Gln Lys Asn Thr Asp Val Val Ala Thr Leu  
 145 150 155 160  
 Lys Lys Ile Arg Arg Tyr Lys Ala Asn Lys Asp Val Met Glu Lys Ala  
 165 170 175  
 Ala Glu Val Tyr Thr Arg Leu Lys Ser Arg Val Leu Gly Pro Lys Ile  
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 195 200 205  
 Glu Glu Lys Leu Ala Gly Glu Glu Leu Ala Gly Glu Glu Ala Pro Gln  
 210 215 220  
 Glu Lys Ala Glu Asp Lys Pro Ser Thr Asp Leu Ser Ala Pro Val Asn  
 225 230 235 240  
 Gly Glu Ala Thr Ser Gln Lys Gly Glu Ser Ala Glu Asp Lys Glu His  
 245 250 255  
 Glu Glu Gly Arg Asp Ser Glu Glu Gly Pro Arg Cys Gly Ser Ser Glu  
 260 265 270  
 Asp Leu His Asp Ser Val Arg Glu Gly Pro Asp Leu Asp Arg Pro Gly

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 290                      295                      300  
 Asp Glu Glu Ser  
 305

<210> 3265  
 <211> 524  
 <212> DNA  
 <213> Homo sapiens

<400> 3265  
 tcatgacagt gtggctcctct gaagatttgt tcagactccc tggaactgtt ctttgtgggc  
 60  
 ctttttcgtg gttttcaaaa tgtttcatt gagggcgat tacttttata atcaacaaaa  
 120  
 gagaaagtat aacttcattt tagaaattct cacctaaggc atttgaaaaa taatccaaaa  
 180  
 ggtacattat tgttgatttt tcttccttct agaaaggatc ttgttcgagt agaagccaca  
 240  
 gtcattgaaa agacagaatc atggccaaga atcattatga gattcaggaa aaggaaaaac  
 300  
 ttcaagaaga aaagaagtaa gttagagaaa gtaccgctgg gccctgttgc acggtgctgg  
 360  
 ttgccaggc gcatgcggac ggagggtgtg gggcacgtgg gtctcgggac aggaagccca  
 420  
 ggcaggtctc aacctggctg ccactgcca cttgccaccc tcattcctaga gggagcaccc  
 480  
 agagggtcca gctcgtctcc ctttctctc cacgctccac gcgt  
 524

<210> 3266  
 <211> 82  
 <212> PRT  
 <213> Homo sapiens

<400> 3266  
 Met Arg Phe Arg Lys Arg Lys Asn Phe Lys Lys Lys Arg Ser Lys Leu  
 1                      5                      10                      15  
 Glu Lys Val Pro Leu Gly Pro Val Ala Arg Cys Trp Leu Pro Arg Arg  
 20                      25                      30  
 Met Arg Thr Glu Gly Val Gly His Val Gly Leu Gly Thr Gly Ser Pro  
 35                      40                      45  
 Gly Arg Ser Gln Pro Gly Cys His Cys Pro Leu Ala Thr Leu Ile Leu  
 50                      55                      60  
 Glu Gly Ala Pro Arg Gly Ser Ser Leu Ala Pro Leu Leu Leu His Ala  
 65                      70                      75                      80  
 Pro Arg

<210> 3267  
 <211> 393  
 <212> DNA  
 <213> Homo sapiens

&lt;400&gt; 3267

gtcgaatatg catgcagagt acaggggttta gaacatgaca tggaagagat caatgctcga  
60  
tggaatacat tgaataaaaa ggctgcacaa agaattgcac agctacagga agctttgttg  
120  
cattgtggga agtttcaaga tgccttgag ccattgtcga gctggttggc agataccgag  
180  
gagctcatag ccaatcagaa acctccatct gctgagtata aagtgggtgaa agcacagatc  
240  
caagaacaga agttgctcca ggggctccta gatgatcgaa aggccacagt agacatgctt  
300  
caagcagaag gaggcagaat agcccagtca gcagagctgg ctgatagaga gaaaatcact  
360  
ggacagctgg agagtcttga aagtagatgg act  
393

&lt;210&gt; 3268

&lt;211&gt; 131

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3268

Val	Glu	Tyr	Ala	Cys	Arg	Val	Gln	Gly	Leu	Glu	His	Asp	Met	Glu	Glu
1				5				10						15	
Ile	Asn	Ala	Arg	Trp	Asn	Thr	Leu	Asn	Lys	Lys	Val	Ala	Gln	Arg	Ile
		20					25					30			
Ala	Gln	Leu	Gln	Glu	Ala	Leu	Leu	His	Cys	Gly	Lys	Phe	Gln	Asp	Ala
		35				40					45				
Leu	Glu	Pro	Leu	Leu	Ser	Trp	Leu	Ala	Asp	Thr	Glu	Glu	Leu	Ile	Ala
	50				55				60						
Asn	Gln	Lys	Pro	Pro	Ser	Ala	Glu	Tyr	Lys	Val	Val	Lys	Ala	Gln	Ile
65				70				75						80	
Gln	Glu	Gln	Lys	Leu	Leu	Gln	Arg	Leu	Leu	Asp	Asp	Arg	Lys	Ala	Thr
			85				90						95		
Val	Asp	Met	Leu	Gln	Ala	Glu	Gly	Gly	Arg	Ile	Ala	Gln	Ser	Ala	Glu
			100				105					110			
Leu	Ala	Asp	Arg	Glu	Lys	Ile	Thr	Gly	Gln	Leu	Glu	Ser	Leu	Glu	Ser
		115				120					125				
Arg	Trp	Thr													
		130													

&lt;210&gt; 3269

&lt;211&gt; 1423

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3269

ctgtatcaaa aataatagta actttttgaa tatacacaat ttatctagaa tctattttcc  
60  
tttgaagctg taactttatg agcgattatt tactaccttt gagaaatgtg ttttagtata  
120  
aaatatagga tgtggaagcg aaaaaatc tgggtagcaa gtgaggtgta ctcaaaaata  
180



agcaaaagtc acgtgggtct gattttatac cctcgctgga aagcttggtc tcagacacac  
 240  
 tgttactgca agtgtgtgtg agggggaaac tctcacacac tttgcagttg aggacagggc  
 300  
 tagactttga ggtggaccct ggctcccagg gctgtgtact cccagcccgt gtttctcttt  
 360  
 tgctcagact gaacaagtgg aacgaaatta cattaaagaa aagaaggcag cagtgaagaa  
 420  
 atttgaagac aagaagggtg agctgaaaga gaacctgatt gctgagctag aagaaaagaa  
 480  
 gaaaatgatt gaaaacgaaa tgctgacaat ggaactgaat ggagattcta tggaggtgaa  
 540  
 acctatcatg accagaaagt tgcggaggcg accaaatgat cccgtcccca tcccagacaa  
 600  
 gaggaggaaa cctgctccag cccagctaaa ctatttggtta acagatgaac agatcatgga  
 660  
 ggatctgaga acattaaata agcttaagtc acccaagaga ccagcatctc catcctctcc  
 720  
 tgagcacttg cctgcaacac ccgcggaatc tccagcacag agatttgagg cgcggataga  
 780  
 agatggcaaa ctgtattatg acaaagatg gtaccacaag agccaggcca tctatctgga  
 840  
 gtcaaaggac aaccagaaac tgagctgctg gatcagttct gtaggagcca atgagatctg  
 900  
 ggtgaggaag acaagtgaca gcaccaagat gaggatctac ctgggtcagc ttcagcgcg  
 960  
 gctcttcgtg atccgccggc gctcagctgc ttgactttct acagtgtctt tctcttgacc  
 1020  
 ctttttctgg agtgggtttt atttttgttt tgtttcgttt tctccttaat agaaaaatgt  
 1080  
 taacttactg ggaatagcta ctcagccttg gaaatggaga gcaactgcagt gaattcttta  
 1140  
 gggcactttt gtggcgggat gcttccaact ttgtcagttt tttctgcctc aacttcttcc  
 1200  
 agacatcagt caccatgaga ctgttttact ttcaggcgta ttgggggggt tgatttactt  
 1260  
 tccttttatt tctttatttt ttgcttatac ttgtttttga aaacctctc tgagtttgaa  
 1320  
 gggacagcta tttttattga ttatctttaa gtctctctac catggagaag agcaggaagg  
 1380  
 gatacactct ccagtgcatt ttcattgttt gaatcggatt agt  
 1423

&lt;210&gt; 3270

&lt;211&gt; 169

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3270

Met Ile Glu Asn Glu Met Leu Thr Met Glu Leu Asn Gly Asp Ser Met  
 1 5 10 15  
 Glu Val Lys Pro Ile Met Thr Arg Lys Leu Arg Arg Arg Pro Asn Asp  
 20 25 30  
 Pro Val Pro Ile Pro Asp Lys Arg Arg Lys Pro Ala Pro Ala Gln Leu

```

      35              40              45
Asn Tyr Leu Leu Thr Asp Glu Gln Ile Met Glu Asp Leu Arg Thr Leu
  50              55              60
Asn Lys Leu Lys Ser Pro Lys Arg Pro Ala Ser Pro Ser Ser Pro Glu
65              70              75              80
His Leu Pro Ala Thr Pro Ala Glu Ser Pro Ala Gln Arg Phe Glu Ala
      85              90              95
Arg Ile Glu Asp Gly Lys Leu Tyr Tyr Asp Lys Arg Trp Tyr His Lys
      100              105              110
Ser Gln Ala Ile Tyr Leu Glu Ser Lys Asp Asn Gln Lys Leu Ser Cys
      115              120              125
Val Ile Ser Ser Val Gly Ala Asn Glu Ile Trp Val Arg Lys Thr Ser
      130              135              140
Asp Ser Thr Lys Met Arg Ile Tyr Leu Gly Gln Leu Gln Arg Gly Leu
145              150              155              160
Phe Val Ile Arg Arg Arg Ser Ala Ala
      165

```

&lt;210&gt; 3271

&lt;211&gt; 464

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3271

```

tcatgagcag ggccaattc tggtttctct gtggctgcca tccatgtgct gggcgctcact
60
gaaggcactg gggatacagc cgagcacaag atggacagag atccctggcc cctcggagca
120
ggcagtctgt ggtctctggcc cctccagttc cttgtcacca ggagataggc aatgcagctg
180
atgagaaggg ccccggcagc aagagatcca atgatggtgg ccgccaggat cccagcgttg
240
gtgggcaggt gtgtactggg cagctcctta ttcttttcag ctacctggac ctcagtcttg
300
gccttcatag tccattcaga gttgatggta atggctactt ggtagggtgcc actgtctgta
360
ggctggggcg ggcgcagcag catggaacca ttgggggaagc ccacgatgtc tcgctgtccc
420
atggcactgc catccctctg aggcggttgt atccccaggg atgt
464

```

&lt;210&gt; 3272

&lt;211&gt; 140

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3272

```

Met Gly Gln Arg Asp Ile Val Gly Phe Pro Asn Gly Ser Met Leu Leu
  1              5              10              15
Arg Arg Ala Gln Pro Thr Asp Ser Gly Thr Tyr Gln Val Ala Ile Thr
      20              25              30
Ile Asn Ser Glu Trp Thr Met Lys Ala Lys Thr Glu Val Gln Val Ala
      35              40              45
Glu Lys Asn Lys Glu Leu Pro Ser Thr His Leu Pro Thr Asn Ala Gly

```

```

      50              55              60
Ile Leu Ala Ala Thr Ile Ile Gly Ser Leu Ala Ala Gly Ala Leu Leu
65              70              75              80
Ile Ser Cys Ile Ala Tyr Leu Leu Val Thr Arg Asn Trp Arg Gly Gln
      85              90              95
Ser His Arg Leu Pro Ala Pro Arg Gly Gln Gly Ser Leu Ser Ile Leu
      100             105             110
Cys Ser Ala Val Ser Pro Val Pro Ser Val Thr Pro Ser Thr Trp Met
      115             120             125
Ala Thr Thr Glu Lys Pro Glu Leu Gly Pro Ala His
      130             135             140

```

&lt;210&gt; 3273

&lt;211&gt; 387

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3273

```

ngcgcgcagc ggatggaaaa ctttattctg tatgaggaga tcggaagagg aagcaagact
60
gttgtctata aagggcgacg gaagggaaca atcaattttg tagccattct ttgtactgat
120
aagtgcagaa ggcctgaaat aaccaactgg gtccgtctca cccgtgaaat aaaacacaag
180
aatattgtaa cttttcatga atggtatgaa acaagcaacc acctctggct agtgggtggaa
240
ctccgcacag gtggttcctt aaaaacagtt attgctcaag atgaaaacct cccagaagat
300
gttgtgagag aatttggaat tgacctgatt agtggattac atcatcttca taaacttggc
360
attctctttg tgacatttct cctagga
387

```

&lt;210&gt; 3274

&lt;211&gt; 129

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3274

```

Xaa Ala Pro Gly Met Glu Asn Phe Ile Leu Tyr Glu Glu Ile Gly Arg
1              5              10              15
Gly Ser Lys Thr Val Val Tyr Lys Gly Arg Arg Lys Gly Thr Ile Asn
      20              25              30
Phe Val Ala Ile Leu Cys Thr Asp Lys Cys Arg Arg Pro Glu Ile Thr
      35              40              45
Asn Trp Val Arg Leu Thr Arg Glu Ile Lys His Lys Asn Ile Val Thr
      50              55              60
Phe His Glu Trp Tyr Glu Thr Ser Asn His Leu Trp Leu Val Val Glu
65              70              75              80
Leu Arg Thr Gly Gly Ser Leu Lys Thr Val Ile Ala Gln Asp Glu Asn
      85              90              95
Leu Pro Glu Asp Val Val Arg Glu Phe Gly Ile Asp Leu Ile Ser Gly
      100             105             110
Leu His His Leu His Lys Leu Gly Ile Leu Phe Val Thr Phe Leu Leu

```

Gly

115 120 125

<210> 3275  
<211> 1266  
<212> DNA  
<213> Homo sapiens

<400> 3275  
ttttttttaa tcagttaaga ttcttggtga cacaaattgt tttacatcaa ctgttggtat  
60  
agaacacatg aaaggaatac atggggaaga aataaagtag aaccaagag ttcttttaag  
120  
ttttctttta tagagacatg aataacagat aactgaagt ataaacaaaa attggcctga  
180  
agcgtccggt ggccggctta gttaggagct atggctaaac atcatcctga tttgatcttt  
240  
tgccgcaagc aggctgggtg tgccatcgga agactgtgtg aaaaatgtga tggcaagtgt  
300  
gtgatttggtg actcctatgt gcgtccctgc actctggtgc gcatatgtga tgagtgtaac  
360  
tatggatctt accaggggcg ctgtgtgatc tgtggaggac ctggggtctc tgatgcctat  
420  
tattgtaagg agtgacccat ccaggagaag gacagagatg gctgcccaa gattgtcaat  
480  
ctggggagct ctaagacaga cctcttctat gaacgcaaaa aatacggctt caagaagagg  
540  
tgattggtgg gtggccccct cctcccccca acatcagtct gctgcagctg ccagaaaaca  
600  
tgcctactac taccagcaga aaggagcag agcccagagc atcaccagga gtgcctgcta  
660  
gtgtactggc agcttgccac cccctcctct cccttcaccc agacacgtgg tagggatgga  
720  
aaaggattct tcacagagca ctctggcaca ccatatcgga gaaaaattga tagattagtt  
780  
aatggttttt cttgaattcg agaagcatag atctgttctc catattggtg tgttctccct  
840  
caaccaagat cttctaaaaa gaaataatat tttagtcttc tgcttgagga actgactgtg  
900  
aagcgacgcc cagtgaaaaa catgatcttg cagcagctct ggtggcagct gtccttgagg  
960  
aacctttggt gtgtgggtggg aagctatcag aacaagaaat gtaggcattt cccgtttttt  
1020  
ttgggggggg ggtggggggg cagggctctg ccctcttgaa aggcatttac ttgtttaaca  
1080  
cttgccagc tacagtgggg tacagtagct ggctattcac aggcattcac atagcccact  
1140  
agtctcatat tattttcctt ttgagaaatt ggaaactctt tctgttgcta ttatattaat  
1200  
aaagtgggtg tttattttct ggtaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa  
1260  
aaaaaa  
1266

<210> 3276  
 <211> 110  
 <212> PRT  
 <213> Homo sapiens

<400> 3276  
 Met Ala Lys His His Pro Asp Leu Ile Phe Cys Arg Lys Gln Ala Gly  
   1                  5                  10                  15  
 Val Ala Ile Gly Arg Leu Cys Glu Lys Cys Asp Gly Lys Cys Val Ile  
           20                  25                  30  
 Cys Asp Ser Tyr Val Arg Pro Cys Thr Leu Val Arg Ile Cys Asp Glu  
           35                  40                  45  
 Cys Asn Tyr Gly Ser Tyr Gln Gly Arg Cys Val Ile Cys Gly Gly Pro  
   50                  55                  60  
 Gly Val Ser Asp Ala Tyr Tyr Cys Lys Glu Cys Thr Ile Gln Glu Lys  
 65                  70                  75                  80  
 Asp Arg Asp Gly Cys Pro Lys Ile Val Asn Leu Gly Ser Ser Lys Thr  
                   85                  90                  95  
 Asp Leu Phe Tyr Glu Arg Lys Lys Tyr Gly Phe Lys Lys Arg  
           100                  105                  110

<210> 3277  
 <211> 1435  
 <212> DNA  
 <213> Homo sapiens

<400> 3277  
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 60  
 ctgcgtggga ggcagaaaga gctaattgctg ccacgcttgt ccctcggcca ccgtcccacc  
 120  
 cagacttccg tctccttaaa atgttcatgc gtaagtgcgt ggcagaagcg gctcaagcgc  
 180  
 actcgtgcgt cattgctgtc agggccgagg gagcgggtgca aggccgccgc gtgacgtcag  
 240  
 gacgccgcgg tcaggacgtc gaagccaaag aagaccagag ccagccgggt ggcacagcgg  
 300  
 tgctcgtggc gtgttgctga tcgcctgggt ggttggtggc gtgtccctgc agcgaaggat  
 360  
 cctgggtggc agtgaaaaag cagtctggct cccgaggtcc accccttata cccaaggctc  
 420  
 cagatggcgg ccaacgtggg tgatcaacgt agcacagatt ggtcttctca gtacagcatg  
 480  
 gtggctgggg caggccgaga gaatggcatg gagacgccga tgcacgagaa cccggagtgg  
 540  
 gagaaggccc gtcaggccct ggccagcatc agcaagtcag gagctgccgg cggctctgcc  
 600  
 aagtccagca gcaatgggcc tgtggccagt gcaagtacgt gtcccaggca gaagcctcag  
 660  
 ctttgagca gcagcagtac taccagtgg accagcagta caactatgcc taccctaca  
 720  
 gctactacta tcccatgagc atgtaccaga gctatggctc cccttcccag tatgggatgg  
 780

```
<210> 3278
<211> 104
<212> PRT
<213> Homo sapiens
```

```
<210> 3279
<211> 1130
<212> DNA
<213> Homo sapiens
```

2470

cctgagccag aaccaggcac catggtggag aagggatcag atagctctc agagaagggc  
 180  
 ggggtgcctg ggacccccag caccagagc ctaggcagcc ggaacttcat ccgcaacagc  
 240  
 aagaagatgc agagctggta cagtatgctg agccccactt ataagcagcg taatgaggac  
 300  
 ttccggaaac tggttcagcaa actccccgaa gcagaacgcc tcattgtgga ttactcctgc  
 360  
 gccttcagc gtgagatcct gctccagggc cgcctctacc tctctgagaa ctggatctgc  
 420  
 ttctacagca acatcttccg ctgggagacc acgatctcca tccagctgaa ggaagtgaca  
 480  
 tgtctgaaga aggaaaagac ggccaagctg atccccaaag ccatccagat ctgcacggag  
 540  
 agcgagaagc atttcttcac ttcttttggg gcccgtagcc gctgcttct cctcatcttc  
 600  
 cgcctctggc agaatgcact gcttgaaaag acgctgagtc cccgcgagct ctggcacctg  
 660  
 gtgcatcagt gctacggctc agagctgggc ctcaccagtg aggatgagga ctatgtctcc  
 720  
 cccttgagc tgaacggtct ggggaccccc aaggaagtgg gagatgtgat cgccctgagc  
 780  
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 840  
 cgtggccatg tcacgccccaa cttttccga gccagcagcg acgcagacca tggggcagag  
 900  
 gaggacaagg aggagcaggt agacagccag ccagacgcct cctccagcca gacagtgacc  
 960  
 ccggtggctg aacccccgag cacagagccc acccagcctg acggggccac caccctgggc  
 1020  
 cccttgatc tgctgcccag tgaggagcta ttgacagaca caagtaactc ctcttcatcc  
 1080  
 actggggagg aagcggactt ggctgccctg cttcccgacc tctccggccg  
 1130

&lt;210&gt; 3280

&lt;211&gt; 376

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3280

Xaa	Arg	Ala	His	Arg	Ala	Ala	Ser	Met	Phe	Asp	Thr	Thr	Pro	His	Ser
1				5					10					15	
Gly	Arg	Ser	Thr	Pro	Ser	Ser	Ser	Pro	Ser	Leu	Arg	Lys	Arg	Leu	Gln
			20					25					30		
Leu	Leu	Pro	Pro	Ser	Arg	Pro	Pro	Pro	Glu	Pro	Glu	Pro	Gly	Thr	Met
		35					40					45			
Val	Glu	Lys	Gly	Ser	Asp	Ser	Ser	Ser	Glu	Lys	Gly	Gly	Val	Pro	Gly
	50					55					60				
Thr	Pro	Ser	Thr	Gln	Ser	Leu	Gly	Ser	Arg	Asn	Phe	Ile	Arg	Asn	Ser
65				70					75					80	
Lys	Lys	Met	Gln	Ser	Trp	Tyr	Ser	Met	Leu	Ser	Pro	Thr	Tyr	Lys	Gln
			85					90						95	
Arg	Asn	Glu	Asp	Phe	Arg	Lys	Leu	Phe	Ser	Lys	Leu	Pro	Glu	Ala	Glu

```

      100      105      110
Arg Leu Ile Val Asp Tyr Ser Cys Ala Leu Gln Arg Glu Ile Leu Leu
      115      120      125
Gln Gly Arg Leu Tyr Leu Ser Glu Asn Trp Ile Cys Phe Tyr Ser Asn
      130      135      140
Ile Phe Arg Trp Glu Thr Thr Ile Ser Ile Gln Leu Lys Glu Val Thr
      145      150      155      160
Cys Leu Lys Lys Glu Lys Thr Ala Lys Leu Ile Pro Asn Ala Ile Gln
      165      170      175
Ile Cys Thr Glu Ser Glu Lys His Phe Phe Thr Ser Phe Gly Ala Arg
      180      185      190
Asp Arg Cys Phe Leu Leu Ile Phe Arg Leu Trp Gln Asn Ala Leu Leu
      195      200      205
Glu Lys Thr Leu Ser Pro Arg Glu Leu Trp His Leu Val His Gln Cys
      210      215      220
Tyr Gly Ser Glu Leu Gly Leu Thr Ser Glu Asp Glu Asp Tyr Val Ser
      225      230      235      240
Pro Leu Gln Leu Asn Gly Leu Gly Thr Pro Lys Glu Val Gly Asp Val
      245      250      255
Ile Ala Leu Ser Asp Ile Thr Ser Ser Gly Ala Ala Asp Arg Ser Gln
      260      265      270
Glu Pro Ser Pro Val Gly Ser Arg Arg Gly His Val Thr Pro Asn Leu
      275      280      285
Ser Arg Ala Ser Ser Asp Ala Asp His Gly Ala Glu Glu Asp Lys Glu
      290      295      300
Glu Gln Val Asp Ser Gln Pro Asp Ala Ser Ser Ser Gln Thr Val Thr
      305      310      315      320
Pro Val Ala Glu Pro Pro Ser Thr Glu Pro Thr Gln Pro Asp Gly Pro
      325      330      335
Thr Thr Leu Gly Pro Leu Asp Leu Leu Pro Ser Glu Glu Leu Leu Thr
      340      345      350
Asp Thr Ser Asn Ser Ser Ser Ser Thr Gly Glu Glu Ala Asp Leu Ala
      355      360      365
Ala Leu Leu Pro Asp Leu Ser Gly
      370      375

```

&lt;210&gt; 3281

&lt;211&gt; 842

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3281

```

gaattctgcc ttgccgtgtg cctcattggc caaaggaaag caacagagtc tgcagccagg
60
gcaggacccg caggaggggg ctggaccggg ggggctcctg gcagcgtgt gcctttctga
120
ggcaaggagg tagagccagc ggctgaggac ctgtcagggc cagtcccagc tctgcagctt
180
gctgtgtgac ctggcacaca tcctctccct gcctccctca gtctcttccc ctgcaagacg
240
gggtcctgac acggatctca tgggattgct ctgaggccca ggagtcocca ggctcaacca
300
ctggttcaca aagtgtgttg tttccaggaa gaacagatgg gggcgctga gggcaaaggg
360

```



cctgagtgtg ggtcgaggat atgccggctg ctgctcagg ggctgggttt tcatcttgtg  
 420  
 tgtcttgaca ggggttgaca cttggcacca cactgttccc tgcccttca tggatgtggc  
 480  
 ccacatgatg ttcctttcct cttgcaaaag aagttgctgg aaggccact gtccagcagc  
 540  
 ccccaggttg cctgggccac ggtgcctttg tgggccagc tacaaggagg acttgaggc  
 600  
 tcgtgtctgg gacagatact ggcgccaggg ccaagtgaag cccgggattg gtgggcatct  
 660  
 ctgctgggtc cctgagagag ggtggagggg gctgacaggc cttggcgctt tcatctgtca  
 720  
 actccagagg cccttgtgct tgcagcaggg aggtcaaggc cagggcgctc gaccccgcc  
 780  
 gctcctccac actgagcctc ctgcacgtgc tcacaggtag agaagcggcg ggtcaatctg  
 840  
 tc  
 842

&lt;210&gt; 3282

&lt;211&gt; 146

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3282

Met	Pro	Thr	Asn	Pro	Gly	Leu	His	Leu	Ala	Leu	Ala	Pro	Val	Ser	Val
1				5					10					15	
Pro	Asp	Thr	Ser	Leu	Gln	Val	Leu	Leu	Val	Ala	Gly	Pro	Thr	Lys	Ala
			20						25					30	
Pro	Trp	Pro	Arg	Gln	Pro	Gly	Gly	Cys	Trp	Thr	Val	Gly	Leu	Pro	Ala
			35					40					45		
Thr	Ser	Phe	Ala	Arg	Gly	Lys	Glu	His	His	Val	Gly	His	Ile	His	Glu
			50			55					60				
Gly	Thr	Gly	Asn	Ser	Val	Val	Pro	Ser	Val	Thr	Pro	Cys	Gln	Asp	Thr
65					70					75				80	
Gln	Asp	Glu	Asn	Pro	Ala	Pro	Glu	Arg	Ala	Ala	Gly	Ile	Ser	Ser	Thr
			85						90					95	
His	Thr	Gln	Ala	Leu	Cys	Pro	Gln	Ala	Pro	Pro	Ser	Val	Leu	Pro	Gly
			100					105					110		
Asn	Asn	Thr	Leu	Cys	Glu	Pro	Val	Val	Glu	Pro	Gly	Thr	Ala	Trp	Ala
			115					120				125			
Ser	Glu	Gln	Ser	His	Glu	Ile	Arg	Val	Arg	Thr	Pro	Ser	Cys	Arg	Gly
			130				135					140			
Arg	Asp														
145															

&lt;210&gt; 3283

&lt;211&gt; 3268

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3283

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3268

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 <211> 1012  
 <212> PRT  
 <213> Homo sapiens

<400> 3284  
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 Ala Phe Thr Arg Xaa His Val Cys Ala Glu Asn Leu Pro Pro Val Leu  
 35 40 45  
 Met Glu His Lys Ala Thr Thr Ile Gln Lys His Val Arg Gly Trp Met  
 50 55 60  
 Ala Arg Arg His Phe Gln Arg Leu Arg Asp Ala Ala Ile Val Ile Gln  
 65 70 75 80  
 Cys Ala Phe Arg Met Leu Lys Ala Arg Arg Glu Leu Lys Ala Leu Arg  
 85 90 95  
 Ile Glu Ala Arg Ser Ala Glu His Leu Lys Arg Leu Asn Val Gly Met  
 100 105 110  
 Glu Asn Lys Val Val Gln Leu Gln Arg Lys Ile Asp Glu Gln Asn Lys  
 115 120 125  
 Glu Phe Lys Thr Leu Ser Glu Gln Leu Ser Val Thr Thr Ser Thr Tyr  
 130 135 140  
 Thr Met Glu Val Glu Arg Leu Lys Lys Glu Leu Val His Tyr Gln Gln  
 145 150 155 160  
 Ser Pro Gly Glu Asp Thr Ser Leu Arg Leu Gln Glu Glu Val Glu Ser  
 165 170 175  
 Leu Arg Thr Glu Leu Gln Arg Ala His Ser Glu Arg Lys Ile Leu Glu  
 180 185 190  
 Asp Ala His Ser Arg Glu Lys Asp Glu Leu Arg Lys Arg Val Ala Asp  
 195 200 205  
 Leu Glu Gln Glu Asn Ala Leu Leu Lys Asp Glu Lys Glu Gln Leu Asn  
 210 215 220  
 Asn Gln Ile Leu Cys Gln Ser Lys Asp Glu Phe Ala Gln Asn Ser Val  
 225 230 235 240  
 Lys Glu Asn Leu Leu Met Lys Lys Glu Leu Glu Glu Glu Arg Ser Arg  
 245 250 255  
 Tyr Gln Asn Leu Val Lys Glu Tyr Ser Gln Leu Glu Gln Arg Tyr Asp  
 260 265 270  
 Asn Leu Arg Asp Glu Met Thr Ile Ile Lys Gln Thr Pro Gly His Arg  
 275 280 285  
 Arg Asn Pro Ser Asn Gln Ser Ser Leu Glu Ser Asp Ser Asn Tyr Pro  
 290 295 300  
 Ser Ile Ser Thr Ser Glu Ile Gly Asp Thr Glu Asp Ala Leu Gln Gln  
 305 310 315 320  
 Val Glu Glu Ile Gly Leu Glu Lys Ala Ala Met Asp Met Thr Val Phe  
 325 330 335  
 Leu Lys Leu Gln Lys Arg Val Arg Glu Leu Glu Gln Glu Arg Lys Lys  
 340 345 350  
 Leu Gln Val Gln Leu Glu Lys Arg Glu Gln Gln Asp Ser Lys Lys Val  
 355 360 365  
 Gln Ala Glu Pro Pro Gln Thr Asp Ile Asp Leu Asp Pro Asn Ala Asp

370		375		380
Leu Ala Tyr Asn Ser	Leu Lys Arg Gln Glu	Leu Glu Ser Glu Asn Lys		
385	390	395	400	
Lys Leu Lys Asn Asp	Leu Asn Glu Leu Arg	Lys Ala Val Ala Asp Gln		
	405	410	415	
Ala Thr Gln Asn Asn Ser Ser His Gly Ser	Pro Asp Ser Tyr Ser Leu			
	420	425	430	
Leu Leu Asn Gln Leu Lys Leu Ala His Glu Glu Leu Glu Val Arg Lys				
	435	440	445	
Glu Glu Val Leu Ile Leu Arg Thr Gln Ile Val Ser Ala Asp Gln Arg				
	450	455	460	
Arg Leu Ala Gly Arg Asn Ala Glu Pro Asn Ile Asn Ala Arg Ser Ser				
465	470	475	480	
Trp Pro Asn Ser Glu Arg His Val Asp Gln Glu Asp Ala Ile Glu Ala				
	485	490	495	
Tyr His Gly Val Cys Gln Thr Asn Arg Leu Leu Glu Ala Gln Leu Gln				
	500	505	510	
Ala Gln Ser Leu Glu His Glu Glu Glu Val Glu His Leu Lys Ala Gln				
	515	520	525	
Leu Glu Ala Leu Lys Glu Glu Met Asp Lys Gln Gln Thr Phe Cys				
	530	535	540	
Gln Thr Leu Leu Leu Ser Pro Glu Ala Gln Val Glu Phe Gly Val Gln				
545	550	555	560	
Gln Glu Ile Ser Arg Leu Thr Asn Glu Asn Leu Asp Leu Lys Glu Leu				
	565	570	575	
Val Glu Lys Leu Glu Lys Asn Glu Arg Lys Leu Lys Lys Gln Leu Lys				
	580	585	590	
Ile Tyr Met Lys Lys Ala Gln Asp Leu Glu Ala Ala Gln Ala Leu Ala				
	595	600	605	
Gln Ser Glu Arg Lys Arg His Glu Leu Asn Arg Gln Val Thr Val Gln				
	610	615	620	
Arg Lys Glu Lys Asp Phe Gln Gly Met Leu Glu Tyr His Lys Glu Asp				
625	630	635	640	
Glu Ala Leu Leu Ile Arg Asn Leu Val Thr Asp Leu Lys Pro Gln Met				
	645	650	655	
Leu Ser Gly Thr Val Pro Cys Leu Pro Ala Tyr Ile Leu Tyr Met Cys				
	660	665	670	
Ile Arg His Ala Asp Tyr Thr Asn Asp Asp Leu Lys Val His Ser Leu				
	675	680	685	
Leu Thr Ser Thr Ile Asn Gly Ile Lys Lys Val Leu Lys Lys His Asn				
	690	695	700	
Asp Asp Phe Glu Met Thr Ser Phe Trp Leu Ser Asn Thr Cys Arg Leu				
705	710	715	720	
Leu His Cys Leu Lys Gln Tyr Ser Gly Asp Glu Gly Phe Met Thr Gln				
	725	730	735	
Asn Thr Ala Lys Gln Asn Glu His Cys Leu Lys Asn Phe Asp Leu Thr				
	740	745	750	
Glu Tyr Arg Gln Val Leu Ser Asp Leu Ser Ile Gln Ile Tyr Gln Gln				
	755	760	765	
Leu Ile Lys Ile Ala Glu Gly Val Leu Gln Pro Met Ile Val Ser Ala				
	770	775	780	
Met Leu Glu Asn Glu Ser Ile Gln Gly Leu Ser Gly Val Lys Pro Thr				
785	790	795	800	
Gly Tyr Arg Lys Arg Ser Ser Ser Met Ala Asp Gly Asp Asn Ser Tyr				

	805		810		815										
Cys	Leu	Glu	Ala	Ile	Ile	Arg	Gln	Met	Asn	Ala	Phe	His	Thr	Val	Met
	820		825		830										
Cys	Asp	Gln	Gly	Leu	Asp	Pro	Glu	Ile	Ile	Leu	Gln	Val	Phe	Lys	Gln
	835		840		845										
Leu	Phe	Tyr	Met	Ile	Asn	Ala	Val	Thr	Leu	Asn	Asn	Leu	Leu	Leu	Arg
	850		855		860										
Lys	Asp	Val	Cys	Ser	Trp	Ser	Thr	Gly	Met	Gln	Leu	Arg	Tyr	Asn	Ile
	865		870		875					880					
Ser	Gln	Leu	Glu	Glu	Trp	Leu	Arg	Gly	Arg	Asn	Leu	His	Gln	Ser	Gly
			885		890					895					
Ala	Val	Gln	Thr	Met	Glu	Pro	Leu	Ile	Gln	Ala	Ala	Gln	Leu	Leu	Gln
	900		905		910										
Leu	Lys	Lys	Lys	Thr	Gln	Glu	Asp	Ala	Glu	Ala	Ile	Cys	Ser	Leu	Cys
	915		920		925										
Thr	Ser	Leu	Ser	Thr	Gln	Gln	Ile	Val	Lys	Ile	Leu	Asn	Leu	Tyr	Thr
	930		935		940										
Pro	Leu	Asn	Glu	Phe	Glu	Glu	Arg	Val	Thr	Val	Ala	Phe	Ile	Arg	Thr
	945		950		955									960	
Ile	Gln	Ala	Gln	Leu	Gln	Glu	Arg	Asn	Asp	Pro	Gln	Gln	Leu	Leu	Leu
			965		970									975	
Asp	Ala	Lys	His	Met	Phe	Pro	Val	Leu	Phe	Pro	Phe	Asn	Pro	Ser	Ser
	980		985		990										
Leu	Thr	Met	Asp	Ser	Ile	His	Ile	Pro	Ala	Cys	Leu	Asn	Leu	Glu	Phe
	995		1000		1005										
Leu	Asn	Glu	Val												
	1010														

&lt;210&gt; 3285

&lt;211&gt; 1518

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3285

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 120  
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 180  
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 240  
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 300  
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 360  
 atctaacttt acacatgtcc taaatcattt tccagcactt ctcacataga agtctagttt  
 420  
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 480  
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 540  
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&lt;210&gt; 3286

&lt;211&gt; 142

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3286

Met	Lys	Ser	His	Pro	Gly	Gln	Lys	Thr	Val	His	Phe	Ser	Lys	Thr	Glu
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Lys	Asn	Leu	Arg	Tyr	Glu	Ala	Ala	Thr	Ser	Asp	Thr	Tyr	Arg	Lys	Gly
		20						25					30		
Lys	Asn	Asn	Asp	Asn	Thr	Arg	Pro	Ala	Pro	Pro	Pro	Lys	Ser	Cys	Cys
		35					40					45			
Cys	Glu	Leu	Arg	Leu	Gln	Lys	Arg	Thr	His	Thr	Val	Ala	Asp	Lys	Thr
	50					55					60				
Gln	Ala	Arg	Arg	Met	Phe	Glu	Ser	Gln	Ser	Ala	Leu	Ser	Leu	Val	Pro
65					70					75				80	
Val	Thr	Ser	Tyr	Val	Gln	Leu	Pro	Gly	Pro	Ile	Pro	Tyr	Ser	Asp	Cys
			85					90					95		
Arg	Leu	Arg	Thr	Glu	Asp	Ala	Pro	Leu	Leu	Ser	Leu	His	Phe	Asp	Leu
			100					105					110		
Leu	Phe	Pro	Leu	Lys	Thr	Arg	Arg	Pro	Ala	Phe	Pro	Lys	Thr	Ala	Trp

	115		120		125								
Pro	Trp	Leu	Cys	Thr	Leu	Phe	Thr	Thr	Asp	Gln	Asn	Ser	Ile
	130				135						140		

&lt;210&gt; 3287

&lt;211&gt; 921

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3287

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 780  
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 900  
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 921

&lt;210&gt; 3288

&lt;211&gt; 148

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3288

Met	Thr	Asp	Ser	Arg	Glu	Asp	Ser	Val	Arg	Arg	Arg	Lys	Ser	Gly	Ala
1				5					10					15	
Leu	Gly	Arg	Val	Gly	Ile	Val	Ser	Pro	Ala	Pro	Phe	Pro	Ala	Pro	Gln
			20					25					30		
Ser	Cys	Ser	Phe	Ser	Phe	Gly	Leu	Ser	Lys	Tyr	Pro	Gly	Pro	Pro	Cys



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Ile Pro Leu Pro Phe Ser Cys Gly Cys Gly Ala Ser Leu Asn Arg Ser
      50              55              60
Thr Phe Leu Phe Pro Ser Thr Arg Asp Arg Glu Ser Leu Lys Gly Ser
65              70              75              80
Gly Ala Pro Ser Ala His Leu Asp Gly Ala Gly Asp Ala Gln Arg Arg
      85              90              95
Phe Arg Ala Leu Tyr Phe Gln Leu Gln His Ser Gln Val Phe Thr Ala
      100              105              110
Gln Gly Asp Gly Ala Arg Val Thr Arg Asn Pro Gly Glu Gly Arg Ser
      115              120              125
Phe Pro Arg Arg Gly Ala Thr Ser Phe Pro Asp Trp Ala Tyr Ala Gly
      130              135              140
Gly Arg Gln Leu
145

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&lt;210&gt; 3289

&lt;211&gt; 554

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3289

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120
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180
cctcccctcc cattcacaga gccctgccag ggtggctggc aatgggtgaag tccagggcag
240
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300
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420
gccaaagcaca tcacccagc ccttggggag caggagccgg gccttcgagg gtgaggagct
480
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540
ataagctgca attg
554

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&lt;210&gt; 3290

&lt;211&gt; 129

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3290

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Met Ile Pro Gly Cys Leu Pro Trp Ser Phe Ala Phe Pro Ser Ser Ser
  1              5              10              15
Pro Cys Lys Ala Arg Leu Leu Leu Pro Lys Gly Trp Gly Asp Val Leu
      20              25              30
Gly Ser Leu Thr Gln Cys Arg Arg Ala Trp Val Pro Pro Trp Thr Gln

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35	40	45
Ser Leu Pro Leu Gly Ala	Ser Val Ser Ser Ser	Val Asp Trp Val Ala
50	55	60
Cys Ala Ala Arg Arg Gly	Cys Leu Val Ser Gly	Arg Trp Ser Thr His
65	70	75
His Arg Val Glu Ser Lys	Ala Ser Pro Leu Ser	Pro Ser Leu Pro Trp
85	90	95
Thr Ser Pro Leu Pro Ala	Thr Leu Ala Gly Leu	Cys Glu Trp Glu Gly
100	105	110
Arg Pro Ala Leu Ala Gly	Ser Ser Pro Val Pro	Pro Ala Leu Ile Leu
115	120	125
Gly		

&lt;210&gt; 3291

&lt;211&gt; 1075

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3291

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1075

<210> 3292

<211> 102

<212> PRT

<213> Homo sapiens

<400> 3292

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		20					25					30			
Trp	Ser	Ala	Thr	Pro	Gly	Pro	Pro	Trp	Ala	Pro	Ser	Pro	Ala	Thr	Pro
	35					40					45				
Ala	Val	Arg	Leu	Pro	Ala	Pro	Ser	Pro	Thr	Ile	Ala	Ala	Ser	Val	Pro
	50				55				60						
Pro	His	Trp	Leu	Phe	Thr	Trp	Leu	Ala	Val	Ser	Val	Ser	Gln	Pro	Gly
65			70					75					80		
Ser	Glu	Ser	Xaa	Arg	Arg	Pro	Leu	Pro	Pro	Pro	Gln	Leu	Pro	Pro	Pro
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<210> 3293

<211> 2362

<212> DNA

<213> Homo sapiens

<400> 3293

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<210> 3294

<211> 353

<212> PRT

<213> Homo sapiens

<400> 3294

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Gln	Arg	Gly	His	Met	Ala	Cys	Ser	Arg	Pro	Pro	Ser	Gln	Cys	Glu	Pro
			20					25				30			
Thr	Ser	Leu	Pro	Pro	Gly	Pro	Pro	Ala	Gly	Arg	Arg	His	Leu	Pro	Leu
		35				40						45			
Ser	Arg	Arg	Arg	Arg	Glu	Met	Ser	Ser	Asn	Lys	Glu	Gln	Arg	Ser	Ala
	50				55						60				
Val	Phe	Val	Ile	Leu	Phe	Ala	Leu	Ile	Thr	Ile	Leu	Ile	Leu	Tyr	Ser
65				70					75					80	
Ser	Asn	Ser	Ala	Asn	Glu	Val	Phe	His	Tyr	Gly	Ser	Leu	Arg	Gly	Arg
			85					90					95		
Ser	Arg	Arg	Pro	Val	Asn	Leu	Lys	Lys	Trp	Ser	Ile	Thr	Asp	Gly	Tyr
			100					105					110		
Val	Pro	Ile	Leu	Gly	Asn	Lys	Thr	Leu	Pro	Ser	Arg	Cys	His	Gln	Cys
		115				120						125			
Val	Ile	Val	Ser	Ser	Ser	Ser	His	Leu	Leu	Gly	Thr	Lys	Leu	Gly	Pro
	130					135						140			
Glu	Ile	Glu	Arg	Ala	Glu	Cys	Thr	Ile	Arg	Met	Asn	Asp	Ala	Pro	Thr
145				150					155					160	
Thr	Gly	Tyr	Ser	Ala	Asp	Val	Gly	Asn	Lys	Thr	Thr	Tyr	Arg	Val	Val
				165				170					175		
Ala	His	Ser	Ser	Val	Phe	Arg	Val	Leu	Arg	Arg	Pro	Gln	Glu	Phe	Val
			180					185					190		
Asn	Arg	Thr	Pro	Glu	Thr	Val	Phe	Ile	Phe	Trp	Gly	Pro	Pro	Ser	Lys
		195				200						205			
Met	Gln	Lys	Pro	Gln	Gly	Ser	Leu	Val	Arg	Val	Ile	Gln	Arg	Ala	Gly
	210					215					220				
Leu	Val	Phe	Pro	Asn	Met	Glu	Ala	Tyr	Ala	Val	Ser	Pro	Gly	Arg	Met
225				230					235					240	
Arg	Gln	Phe	Asp	Asp	Leu	Phe	Arg	Gly	Glu	Thr	Gly	Lys	Asp	Arg	Glu
			245					250					255		
Lys	Ser	His	Ser	Trp	Leu	Ser	Thr	Gly	Trp	Phe	Thr	Met	Val	Ile	Ala
			260					265					270		
Val	Glu	Leu	Cys	Asp	His	Val	His	Val	Tyr	Gly	Met	Val	Pro	Pro	Asn
	275					280					285				
Tyr	Cys	Ser	Gln	Arg	Pro	Arg	Leu	Gln	Arg	Met	Pro	Tyr	His	Tyr	Tyr
	290					295					300				
Glu	Pro	Lys	Gly	Pro	Asp	Glu	Cys	Val	Thr	Tyr	Ile	Gln	Asn	Glu	His
305				310					315					320	
Ser	Arg	Lys	Gly	Asn	His	His	Arg	Phe	Ile	Thr	Glu	Lys	Arg	Val	Phe
			325					330					335		
Ser	Ser	Trp	Ala	Gln	Leu	Tyr	Gly	Ile	Thr	Phe	Ser	His	Pro	Ser	Trp
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Thr															

<210> 3295  
 <211> 690  
 <212> DNA  
 <213> Homo sapiens

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<210> 3296  
 <211> 120  
 <212> PRT  
 <213> Homo sapiens

<400> 3296  
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 Leu Trp Glu Arg Pro Gly Cys Cys Ile Arg His Arg Ile Thr Trp Glu  
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 Pro Arg His Met Gly Pro Ala Leu Arg Ser Leu Gln Val Lys Lys Gly  
 35 40 45  
 Thr Glu His Ala Asp Pro Leu Pro Phe Pro Ser Val Ser Leu Ser Gly  
 50 55 60  
 Phe Thr Val Gly Thr Leu Ser Glu Thr Ser Thr Gly Gly Pro Ala Thr  
 65 70 75 80  
 Pro Thr Trp Lys Glu Cys Pro Ile Cys Lys Glu Arg Phe Pro Ala Glu  
 85 90 95  
 Ser Asp Lys Asp Ala Leu Glu Asp His Met Asp Gly His Phe Phe Phe  
 100 105 110  
 Ser Thr Gln Gly Pro Leu His Leu

115

120

&lt;210&gt; 3297

&lt;211&gt; 3176

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3297

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120  
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<210> 3298

<211> 251

<212> PRT

<213> Homo sapiens

<400> 3298

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		20					25					30			
Cys	Leu	Trp	Val	Ser	Phe	Cys	Val	Cys	Val	Cys	Ile	Cys	Val	Cys	Val
	35					40					45				
Xaa	Leu	Cys	Ala	Cys	Met	Cys	Leu	Asp	Val	Cys	Phe	Cys	Met	Cys	Leu
	50					55				60					
Cys	Val	Cys	Leu	Tyr	Val	Cys	Ile	Cys	Val	Tyr	Val	Cys	Val	Cys	His
65				70				75				80			
Phe	Val	Cys	Phe	Trp	Val	Cys	Leu	Ser	Ala	Cys	Leu	Cys	Ile	Pro	Val
		85						90				95			
Ser	Pro	Cys	Val	Cys	Leu	Cys	Val	Cys	Ile	Cys	Xaa	Cys	Leu	Cys	Met
		100					105					110			
Cys	Val	Arg	Gly	Cys	Val	Ser	Val	Cys	Val	Cys	Val	Cys	Ile	Glu	Arg
	115					120				125					
Glu	Gly	Glu	Arg	Lys	Gly	Ala	Thr	Asp	Gly	Ser	Ala	Trp	Lys	Val	Tyr
	130				135					140					
Pro	His	Ser	Gln	Pro	Trp	Glu	Glu	Ser	Val	Asn	Pro	Pro	Thr	Gly	Gln
145				150				155				160			
Asp	Gln	Leu	Trp	Trp	Cys	Leu	Ala	Asp	Ser	Gly	Asn	Val	Thr	Phe	His
		165						170				175			
Leu	Arg	Met	Gly	Leu	His	Phe	Leu	Gly	Lys	Glu	Cys	Arg	Ser	Trp	Ser
		180					185					190			
Leu	Lys	Glu	Cys	Phe	Phe	Phe	Pro	Phe	Val	Ile	Glu	Arg	Ala	Gln	Pro
	195						200				205				
Cys	Val	His	Trp	Leu	Thr	Val	Thr	Asn	Leu	Arg	Val	Gly	Asp	Ser	His
	210				215					220					
Arg	Glu	Glu	Thr	Glu	Gly	Thr	Ala	Asp	Ser	Glu	Gln	Glu	Ser	Gly	Gly
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<210> 3299

<211> 1387

<212> DNA

<213> Homo sapiens

<400> 3299

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240  
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300  
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720  
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&lt;210&gt; 3300

&lt;211&gt; 219

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3300

Met Ser Arg Cys Glu Thr Cys Gly Thr Glu Glu Ala Lys Tyr Arg Cys

1	5	10	15
Pro Arg Cys Met Arg Tyr Ser Cys Ser Leu Pro Cys Val Lys Lys His			
	20	25	30
Lys Ala Glu Leu Thr Cys Asn Gly Val Arg Asp Lys Thr Ala Tyr Ile			
	35	40	45
Ser Ile Gln Gln Phe Thr Glu Met Asn Leu Leu Ser Asp Tyr Arg Phe			
	50	55	60
Leu Glu Asp Val Ala Arg Thr Ala Asp His Ile Ser Arg Asp Ala Phe			
65	70	75	80
Leu Lys Arg Pro Ile Ser Asn Lys Tyr Met Tyr Phe Met Lys Asn Arg			
	85	90	95
Ala Arg Ser Lys Gly Ile Asn Leu Lys Leu Leu Pro Asn Gly Phe Thr			
	100	105	110
Lys Arg Lys Glu Asn Ser Thr Phe Phe Asp Lys Lys Lys Gln Gln Phe			
	115	120	125
Cys Trp His Val Lys Leu Gln Phe Pro Gln Ser Gln Ala Glu Tyr Ile			
	130	135	140
Glu Lys Arg Val Pro Asp Asp Lys Thr Ile Asn Glu Ile Leu Lys Pro			
145	150	155	160
Tyr Ile Asp Pro Glu Lys Ser Asp Pro Val Ile Arg Gln Arg Leu Lys			
	165	170	175
Ala Tyr Ile Arg Ser Gln Thr Gly Val Gln Ile Leu Met Lys Ile Glu			
	180	185	190
Tyr Met Gln Gln Asn Leu Val Arg Tyr Tyr Glu Leu Asp Pro Tyr Lys			
	195	200	205
Ser Leu Leu Asp Asn Leu Arg Asn Lys Val Ile			
210	215		

&lt;210&gt; 3301

&lt;211&gt; 2109

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3301

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240

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300

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360

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420

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480

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1860  
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1920  
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1980  
ccacttcctt tgtgcacagc ctttgagagg ggatcgtggc ctcagttcca ggggttctctg  
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ccagggccaa gtgctccttc tgcagaggcc tgcacgcate tcaccctttt gacttgatt  
2100  
tccatggt  
2109

&lt;210&gt; 3302

&lt;211&gt; 323

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3302

```

Leu Met Ala Arg His Gly Leu Pro Leu Leu Pro Leu Leu Ser Leu Leu
 1           5           10           15
Val Gly Ala Trp Leu Lys Leu Gly Asn Gly Gln Ala Thr Ser Met Val
      20           25           30
Gln Leu Gln Gly Gly Arg Phe Leu Met Gly Thr Asn Ser Pro Asp Ser
      35           40           45
Arg Asp Gly Glu Gly Pro Val Arg Glu Ala Thr Val Lys Pro Phe Ala
      50           55           60
Ile Asp Ile Phe Pro Val Thr Asn Lys Asp Phe Arg Asp Phe Val Arg
      65           70           75           80
Glu Lys Lys Tyr Arg Thr Glu Ala Glu Met Phe Gly Trp Ser Phe Val
      85           90           95
Phe Glu Asp Phe Val Ser Asp Glu Leu Arg Asn Lys Ala Thr Gln Pro
      100          105          110
Met Lys Val Lys Phe Thr His Gly Gly Thr Gly Ser Ser Gln Thr Ala
      115          120          125
Pro Thr Cys Gly Arg Glu Ser Ser Pro Arg Glu Thr Lys Leu Arg Met
      130          135          140
Ala Ser Met Glu Ser Pro Xaa Val Asn Ala Phe Pro Ala Gln Asn Asn
      145          150          155          160
Tyr Gly Leu Tyr Asp Leu Leu Gly Asn Val Trp Glu Trp Thr Ala Ser
      165          170          175
Pro Tyr Gln Ala Ala Glu Gln Asp Met Arg Val Leu Arg Gly His Pro
      180          185          190
Gly Ser Thr Gln Leu Met Ala Leu Pro Ile Thr Gly Pro Gly Ser Pro
      195          200          205
Pro Gly Trp Ala Thr Leu Gln Ile Gln Pro Gln Thr Thr Ser Val Ser
      210          215          220
Ala Val Leu Gln Thr Gln Ala Gly Arg Gln Gly Ser Cys Lys Gln Pro
      225          230          235          240
Gly Gly Asp Lys Glu Lys Ser Leu Leu Gly Ser Leu Ser Phe Pro Gly
      245          250          255
His Val Ala Asn Ser Ala Ile Pro Ser Ser Arg Ala Ser Ala Ser Gly
      260          265          270
Lys Asn Phe Pro Phe Pro Val Ser His Pro Ser Val Ala Gly Ala Ser
      275          280          285
His Gln Gly Arg Arg Gly Leu Ser Leu Leu Cys Phe Gly Glu Gly Ala
      290          295          300
Gln Cys Val Leu Thr Met Ala Gly Gly Gln Val Phe Leu Leu Glu Ala
      305          310          315          320
Lys Tyr Tyr

```

&lt;210&gt; 3303

&lt;211&gt; 699

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3303

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 180  
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 240  
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 300  
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 360  
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 420  
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 480  
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 540  
 ccggaccctg agcagaagag gagccgcgca cgggagcgga ggcgagaggg ccgctccaag  
 600  
 acccttgact gggctgagtt ccgtcccatc cagcaggccc tggtcagga gcgggtgggc  
 660  
 ggcgtggggc ctgctgacac ccacgagccc ctgcgcctt  
 699

&lt;210&gt; 3304

&lt;211&gt; 233

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3304

Pro Arg Lys Arg Asp Phe Thr Asn Glu Ala Pro Pro Ala Pro Leu Pro  
 1 5 10 15  
 Asp Ala Ser Ala Ser Pro Leu Ser Pro His Arg Arg Ala Lys Ser Leu  
 20 25 30  
 Asp Arg Arg Ser Thr Glu Pro Ser Val Thr Pro Asp Leu Leu Asn Phe  
 35 40 45  
 Lys Lys Gly Trp Leu Thr Lys Gln Tyr Glu Asp Gly Gln Trp Lys Lys  
 50 55 60  
 His Trp Phe Val Leu Ala Asp Gln Ser Leu Arg Tyr Tyr Arg Asp Ser  
 65 70 75 80  
 Val Ala Glu Glu Ala Ala Asp Leu Asp Gly Glu Ile Asp Leu Ser Ala  
 85 90 95  
 Cys Tyr Asp Val Thr Glu Tyr Pro Val Gln Arg Asn Tyr Gly Phe Gln  
 100 105 110  
 Ile His Thr Lys Lys Glu Gly Glu Phe Thr Leu Ser Ala Met Thr Ser Gly  
 115 120 125  
 Ile Arg Arg Asn Trp Ile Gln Thr Ile Met Lys His Val His Pro Thr  
 130 135 140  
 Thr Ala Pro Asp Val Thr Ser Ser Leu Pro Glu Glu Lys Asn Lys Ser  
 145 150 155 160  
 Ser Cys Ser Phe Glu Thr Cys Pro Arg Ser Thr Glu Lys Gln Glu Ala  
 165 170 175  
 Glu Leu Gly Glu Pro Asp Pro Glu Gln Lys Arg Ser Arg Ala Arg Glu

			180					185					190				
Arg	Arg	Arg	Glu	Gly	Arg	Ser	Lys	Thr	Phe	Asp	Trp	Ala	Glu	Phe	Arg		
		195					200					205					
Pro	Ile	Gln	Gln	Ala	Leu	Ala	Gln	Glu	Arg	Val	Gly	Gly	Val	Gly	Pro		
	210					215					220						
Ala	Asp	Thr	His	Glu	Pro	Leu	Arg	Pro									
225					230												

&lt;210&gt; 3305

&lt;211&gt; 2717

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3305

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600
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1200

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2640  
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2700  
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2717

&lt;210&gt; 3306



&lt;211&gt; 319

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3306

```

Xaa Asp Pro Arg Tyr Phe Leu Gln Met Thr Glu Thr Thr Val Lys Thr
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Ala Ala Trp Phe Met Ala Asn Val Gln Val Ser Gly Gly Gly Pro Ser
      20           25           30
Ile Ser Leu Val Met Lys Thr Pro Arg Val Ala Lys Asn Glu Ala Leu
      35           40           45
Trp His Pro Thr Leu Asn Leu Pro Leu Ser Pro Gln Gly Thr Val Arg
      50           55           60
Thr Ala Val Glu Phe Gln Val Met Thr Gln Thr Gln Ser Leu Ser Phe
      65           70           75           80
Leu Leu Gly Ser Ser Ala Ser Leu Asp Cys Gly Phe Ser Met Ala Pro
      85           90           95
Gly Leu Asp Leu Ile Ser Val Glu Trp Arg Leu Gln His Lys Gly Arg
      100          105          110
Gly Gln Leu Val Tyr Ser Trp Thr Ala Gly Gln Gly Gln Ala Val Arg
      115          120          125
Lys Gly Ala Thr Leu Xaa Ala Cys Thr Thr Gly His Gly Xaa Arg Asp
      130          135          140
Ala Ser Leu Thr Leu Pro Gly Leu Thr Ile Gln Asp Glu Gly Thr Tyr
      145          150          155          160
Ile Cys Gln Ile Thr Thr Ser Leu Tyr Arg Ala Gln Gln Ile Ile Gln
      165          170          175
Leu Asn Ile Gln Ala Ser Pro Lys Val Arg Leu Ser Leu Ala Asn Glu
      180          185          190
Ala Leu Leu Pro Thr Leu Ile Cys Asp Ile Ala Gly Tyr Tyr Pro Leu
      195          200          205
Asp Val Val Val Thr Trp Thr Arg Glu Glu Leu Gly Gly Ser Pro Ala
      210          215          220
Gln Val Ser Gly Ala Ser Phe Ser Ser Leu Arg Gln Ser Val Ala Gly
      225          230          235          240
Thr Tyr Ser Ile Ser Ser Ser Leu Thr Ala Glu Pro Gly Leu Cys Arg
      245          250          255
Cys His Leu His Leu Pro Gly His Thr His Leu Ser Gly Gly Ala Pro
      260          265          270
Trp Gly Gln His Pro Gly Cys Pro Thr Arg Ala Glu Asn Ser Leu Gly
      275          280          285
Ser His Leu Cys Gln Gln Ser Leu Pro Ser Cys Thr Asp Val Pro Gly
      290          295          300
Ala Ser Glu Thr Ala Ser Thr Tyr Arg Thr Trp Ala Ala Ser Gly
      305          310          315

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&lt;210&gt; 3307

&lt;211&gt; 352

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3307

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<210> 3308

<211> 110

<212> PRT

<213> Homo sapiens

<400> 3308

Met	Gly	Leu	Pro	Arg	Ala	Leu	Ala	Leu	Pro	Ser	Gly	Gly	Arg	Ser	Gly
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Ser	Leu	His	Pro	Asp	Pro	Gly	Ala	Ser	Leu	Pro	Cys	Pro	Val	Leu	Ile
		20				25						30			
Pro	Arg	Trp	Glu	Pro	Cys	Leu	Gly	Gln	Gly	Gly	Arg	Val	Asp	Gly	Ser
	35					40					45				
Trp	Asp	Cys	Asp	Ile	Gly	Arg	Arg	Gly	Arg	Ser	Pro	Ala	Leu	Ser	Ser
	50				55					60					
Ala	Gly	Trp	Ala	Gly	Ile	His	Leu	Ala	Ala	Ser	Gln	Gly	Leu	Cys	Pro
65			70						75				80		
Ala	Gly	Trp	Ser	Leu	Cys	Cys	Pro	Asn	Gln	Val	Ser	Thr	Phe	Pro	Ala
		85						90					95		
Pro	Met	Arg	Arg	Glu	Gly	Gly	Arg	Trp	Trp	Leu	Gly	Trp	Arg		
		100					105						110		

<210> 3309

<211> 737

<212> DNA

<213> Homo sapiens

<400> 3309

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 120  
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 240  
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 360  
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 420  
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 737

<210> 3310

<211> 210

<212> PRT

<213> Homo sapiens

<400> 3310

Ala	His	Leu	Cys	Cys	Pro	Gln	Asp	Pro	Lys	Tyr	Gln	Gly	Leu	Arg	Ala	1	5	10	15
Arg	Gly	Arg	Glu	Ile	Arg	Lys	Glu	Leu	Val	His	Leu	Tyr	Pro	Arg	Glu	20	25	30	
Ala	Gln	Leu	Glu	Glu	Gln	Phe	Tyr	Leu	Gln	Ala	Leu	Lys	Leu	Pro	Asn	35	40	45	
Gln	Thr	His	Pro	Asp	Val	Pro	Val	Gly	Asp	Glu	Ser	Gln	Ala	Arg	Val	50	55	60	
Leu	His	Met	Val	Gly	Asp	Lys	Pro	Val	Phe	Ser	Phe	Gln	Pro	Arg	Gly	65	70	75	80
His	Leu	Glu	Ile	Gly	Glu	Lys	Leu	Asp	Ile	Ile	Arg	Gln	Lys	Arg	Leu	85	90	95	
Ser	His	Val	Ser	Gly	His	Arg	Ser	Tyr	Leu	Arg	Gly	Ala	Gly	Ala		100	105	110	
Leu	Leu	Gln	His	Gly	Leu	Val	Asn	Phe	Thr	Phe	Asn	Lys	Leu	Leu	Arg	115	120	125	
Arg	Gly	Phe	Thr	Pro	Met	Thr	Val	Pro	Asp	Leu	Leu	Arg	Gly	Ala	Val	130	135	140	
Phe	Glu	Gly	Cys	Gly	Met	Thr	Pro	Asn	Ala	Asn	Pro	Ser	Gln	Ile	Tyr	145	150	155	160
Asn	Ile	Asp	Pro	Ala	Arg	Phe	Lys	Asp	Leu	Asn	Leu	Ala	Gly	Thr	Ala	165	170	175	
Glu	Val	Gly	Leu	Ala	Gly	Tyr	Phe	Met	Asp	His	Thr	Val	Ala	Phe	Arg	180	185	190	
Asp	Leu	Pro	Val	Arg	Met	Val	Cys	Ser	Ser	Thr	Cys	Tyr	Arg	Ala	Glu	195	200	205	
Thr	Asn															210			

<210> 3311

<211> 486

<212> DNA

<213> Homo sapiens

<400> 3311

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 60

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 120  
 aggaaagatc aaggagtaaa ccagaagaag aagaaaaaga ggacttcaaa gctgggaagg  
 180  
 atgagttctt gcagcaacgt ctgtgggtcc aggagggcac aggctgcagc tgaggggtggt  
 240  
 taccagcgct atggagtccg gtcctacctg caccagtttt atgaggactg tacagcctca  
 300  
 atttgggagt atgaggatga tttccagatc caaagatcac ctaacagggtg gagctcagta  
 360  
 ttctggaagg ttggactcat ctcaggtaca gtttttgtga tcctcggatt gactgttctg  
 420  
 gcagtgggct ttcttgtgcc ccccaaaatc gaagcatttg gcgaagccga ttttgtgggtg  
 480  
 gtcgac  
 486

&lt;210&gt; 3312

&lt;211&gt; 102

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3312

Met	Ser	Ser	Cys	Ser	Asn	Val	Cys	Gly	Ser	Arg	Gln	Ala	Gln	Ala	Ala
1			5					10					15		
Ala	Glu	Gly	Gly	Tyr	Gln	Arg	Tyr	Gly	Val	Arg	Ser	Tyr	Leu	His	Gln
		20						25					30		
Phe	Tyr	Glu	Asp	Cys	Thr	Ala	Ser	Ile	Trp	Glu	Tyr	Glu	Asp	Asp	Phe
		35					40					45			
Gln	Ile	Gln	Arg	Ser	Pro	Asn	Arg	Trp	Ser	Ser	Val	Phe	Trp	Lys	Val
	50					55					60				
Gly	Leu	Ile	Ser	Gly	Thr	Val	Phe	Val	Ile	Leu	Gly	Leu	Thr	Val	Leu
65				70					75					80	
Ala	Val	Gly	Phe	Leu	Val	Pro	Pro	Lys	Ile	Glu	Ala	Phe	Gly	Glu	Ala
			85					90						95	
Asp	Phe	Val	Val	Val	Asp										
			100												

&lt;210&gt; 3313

&lt;211&gt; 1791

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3313

nggctcggga gacgtacgag gaggaccggg agtacgagag ccaggccaag cgtctcaaga  
 60  
 ccgaggagggg ggagatcgac tactcggccg aggaaggcga gaaccgcggt gaagcgacgc  
 120  
 cccggggcgg gtcgagttgg cggcggcggc ggccgantgc gttctcgtca gccggaaggg  
 180  
 ctgcgaagtc atcataaagt ttctgtttca cccgtcgtcc atgttcgagg actctgtgaa  
 240  
 tctgtgggtg aagcagacct cgtggaagcg ctggaaaaat ttgggacaat atgctatgtg  
 300

atgatgatgc catttaaacy acaggtctcta gtggaatttg aaaacataga tagtgccaaa  
360  
gaatgtgtga catttgctgc agatgaaccc gtgtacattg ctgggtcaaca ggcttttttc  
420  
aactattcta caagcaaaag gatcactcgg ccaggaaata ctgatgatcc atcaggaggc  
480  
aacaaagtgc ttctgctctc aattcagaat ccgctttatc caattacagt ggatgtttta  
540  
tatactgtat gcaaccctgt tggcaaagtg caacgtattg ttatattcaa gagaaatggg  
600  
atacaagcaa tgggtgagtt tgaatcagtc ctttgtgccc agaaagctaa agcagcactc  
660  
aatggagctg atatatatgc tggatgttgc aactaaaaa ttgaatatgc acggccaact  
720  
cgtctaaatg ttattaggaa tgacaatgac agttgggact aactaaacc atatttggga  
780  
agacgagata gaggaaaggg, tcgccagaga caagccattt tgggagaaca cccttcttcg  
840  
tttagacatg atggctatgg atcccatggt ccattattgc ctttaccaag tcgttacaga  
900  
atgggctctc gagatacacc tgaacttggt gcttatccat taccacaggc ttcttctct  
960  
tacatgcatg gaggaaatcc ctctggttca gttgtaatgg ttagtggatt acatcaacta  
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1080  
aaatttatga agaccattcc tggtagagca ctggtagaaa tgggtgatga gtatgctga  
1140  
gaaagagctg tcacacacct taataatgtc aaattatttg ggaaaagact taatgtttgc  
1200  
gtgtctaaac aacattcagt tgttccaagt caaatatttg agctggagga tggtagcagc  
1260  
agctacaaag attttgcaat gagcaaaaat aatcgcttta caagtgtctg ccaagcatct  
1320  
aagaatataa tccagccacc ctctgtgtt ttgcattatt ataatgttcc attgtgtgtc  
1380  
acagaagaga ccttcacaaa gttgtgtaat gaccatgaag ttcttacatt catcaaatat  
1440  
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1500  
aaaactgatg cagtagaagc ccttacggca ctgaatcact atcagataag agtgccgaat  
1560  
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1620  
aagagcatgt tagaatttat gttcaccttt attacaattt caaagctaca cttcattaaa  
1680  
aaaaaatcta aaatggttga tctcatgttg ccttgcttac ttttaagatcc tgttctgtaa  
1740  
taaakatatt ttgccttgag taaatttggt gtaagcttaa aaaaaaaaaa a  
1791

&lt;210&gt; 3314

&lt;211&gt; 537

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3314

Xaa Leu Gly Arg Arg Thr Arg Arg Thr Gly Ser Thr Arg Ala Arg Pro  
 1 5 10 15  
 Ser Val Ser Arg Pro Arg Arg Gly Arg Ser Thr Thr Arg Pro Arg Lys  
 20 25 30  
 Ala Arg Thr Ala Val Lys Arg Arg Pro Gly Ala Gly Arg Val Gly Gly  
 35 40 45  
 Gly Gly Gly Arg Xaa Arg Ser Arg Gln Pro Glu Gly Leu Arg Ser His  
 50 55 60  
 His Lys Val Ser Val Ser Pro Val Val His Val Arg Gly Leu Cys Glu  
 65 70 75 80  
 Ser Val Val Glu Ala Asp Leu Val Glu Ala Leu Glu Lys Phe Gly Thr  
 85 90 95  
 Ile Cys Tyr Val Met Met Met Pro Phe Lys Arg Gln Ala Leu Val Glu  
 100 105 110  
 Phe Glu Asn Ile Asp Ser Ala Lys Glu Cys Val Thr Phe Ala Ala Asp  
 115 120 125  
 Glu Pro Val Tyr Ile Ala Gly Gln Gln Ala Phe Phe Asn Tyr Ser Thr  
 130 135 140  
 Ser Lys Arg Ile Thr Arg Pro Gly Asn Thr Asp Asp Pro Ser Gly Gly  
 145 150 155 160  
 Asn Lys Val Leu Leu Leu Ser Ile Gln Asn Pro Leu Tyr Pro Ile Thr  
 165 170 175  
 Val Asp Val Leu Tyr Thr Val Cys Asn Pro Val Gly Lys Val Gln Arg  
 180 185 190  
 Ile Val Ile Phe Lys Arg Asn Gly Ile Gln Ala Met Val Glu Phe Glu  
 195 200 205  
 Ser Val Leu Cys Ala Gln Lys Ala Lys Ala Ala Leu Asn Gly Ala Asp  
 210 215 220  
 Ile Tyr Ala Gly Cys Cys Thr Leu Lys Ile Glu Tyr Ala Arg Pro Thr  
 225 230 235 240  
 Arg Leu Asn Val Ile Arg Asn Asp Asn Asp Ser Trp Asp Tyr Thr Lys  
 245 250 255  
 Pro Tyr Leu Gly Arg Arg Asp Arg Gly Lys Gly Arg Gln Arg Gln Ala  
 260 265 270  
 Ile Leu Gly Glu His Pro Ser Ser Phe Arg His Asp Gly Tyr Gly Ser  
 275 280 285  
 His Gly Pro Leu Leu Pro Leu Pro Ser Arg Tyr Arg Met Gly Ser Arg  
 290 295 300  
 Asp Thr Pro Glu Leu Val Ala Tyr Pro Leu Pro Gln Ala Ser Ser Ser  
 305 310 315 320  
 Tyr Met His Gly Gly Asn Pro Ser Gly Ser Val Val Met Val Ser Gly  
 325 330 335  
 Leu His Gln Leu Lys Met Asn Cys Ser Arg Val Phe Asn Leu Phe Cys  
 340 345 350  
 Leu Tyr Gly Asn Ile Glu Lys Val Lys Phe Met Lys Thr Ile Pro Gly  
 355 360 365  
 Thr Ala Leu Val Glu Met Gly Asp Glu Tyr Ala Val Glu Arg Ala Val  
 370 375 380  
 Thr His Leu Asn Asn Val Lys Leu Phe Gly Lys Arg Leu Asn Val Cys  
 385 390 395 400  
 Val Ser Lys Gln His Ser Val Val Pro Ser Gln Ile Phe Glu Leu Glu

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<210> 3315
<211> 934
<212> DNA
<213> Homo sapiens
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2503

ggggcgggga tgcagattga tcttgagact gcag  
934

<210> 3316

<211> 187

<212> PRT

<213> Homo sapiens

<400> 3316

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Asp Leu Arg Gly Pro Glu Gln Pro Pro Phe Gly Leu Leu Leu Glu Gly
 1           5           10           15
Ser Ile His Arg Ala Leu His Ile Tyr Gln Gly Asn Ile Lys Ile Tyr
 20          25          30
Val Pro Lys Thr Ser Leu Ser Ser Pro Pro Trp Pro Glu Val Val Leu
 35          40          45
Pro Asp Pro Val Glu Glu Thr Arg His His Ala Glu Val Val Lys Lys
 50          55          60
Val Asn Glu Met Ile Val Thr Gly Gln Tyr Gly Arg Leu Phe Ala Val
 65          70          75          80
Val His Phe Ala Ser Arg Gln Trp Lys Val Thr Ser Glu Asp Leu Ile
 85          90          95
Leu Ile Gly Asn Glu Leu Asp Leu Ala Cys Gly Glu Arg Ile Arg Leu
100         105         110
Glu Lys Val Leu Leu Val Gly Ala Asp Asn Phe Thr Leu Leu Gly Lys
115         120         125
Pro Leu Leu Gly Lys Asp Leu Val Arg Val Glu Ala Thr Val Ile Glu
130         135         140
Lys Thr Glu Ser Trp Pro Arg Ile Ile Met Arg Phe Arg Lys Arg Lys
145         150         155         160
Asn Phe Lys Lys Lys Arg Ile Val Thr Thr Pro Gln Thr Val Leu Arg
165         170         175
Ile Asn Ser Ile Glu Ile Ala Pro Cys Leu Leu
180         185

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<210> 3317

<211> 1665

<212> DNA

<213> Homo sapiens

<400> 3317

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120
aaaagaagct gagaaaaaaa gatgccaaga ctggaagcat cgaagatggt gagccctttc
180
caagtgtctac gttatgaagc tgccaaatta agaactga gcaaagttaa ttctcccgta
240
gttgggaaag attatatatta ttttcttctt actttttaat gtctagatcc agaataaag
300
aagtttttag aaacctactg tgtggaggaa gagaagacca gtgccaaccc tgagactctg
360
ctggggggaga tggaggcgaa gacaagagag ctcattgcta gaagaaccac acctcttttg
420

```



gaatatatta aaaatagaaa attagaaaag cagagaattc gagaagagaa gcgagaagaa  
 480  
 cggaggagga gagagttaga aaagaaacgt ttgcgggaag aggaaaaaag aagaagaaga  
 540  
 gaagaagaaa gatgcaaaaa aaaagagaca gataaacaga agaaaattgc agagaaagaa  
 600  
 gtaaggatta agcttcttaa gaaaccagaa aaggagagg aaccaaccac agagaaacca  
 660  
 aaagaaagag gagaggagat tgatactgga ggtggcaagc aggaatcctg tgcccccggt  
 720  
 gcagtcgtaa aagccaggcc catggaagc tcgctggagg agccccagga gacgtcacac  
 780  
 agcggcagt ataaagagca cagggatgtg gagagatctc aagaacaaga atctgaagca  
 840  
 caagataacc atgtggatga cggcaggagg cacagagctc accacgagcc tgaacggctt  
 900  
 tccagaagga gtgaggatga gcagagatgg gggaaaggac ctggccaaga cagagggaag  
 960  
 aaggggagcc aggacagcgg ggctccgggg gaggccatgg agagactggg aagagcgag  
 1020  
 aggtgtgacg acagtccagc acccagaaaa gagcgactgg caaacaaggt ttttattaaa  
 1080  
 cccaaaaaga aaaatgtgtc tggctgtctt aagggtccagg ctgcatgctg accatgtcac  
 1140  
 cccacttgg ccttgtgtct tggggaacgc agtgctttga gcattttcaa gagcagtttt  
 1200  
 tcttgaaagt cagatcccag agtgagacta gtcacatct tttctcagat aatcaaatta  
 1260  
 tttttcacca ggaaaaagaa agattttatt tagtataaaa ctagcacgtt tatatgattc  
 1320  
 acttgagaat aagattatta aatttaccct tgagacagga aggaaagtta taatgatatt  
 1380  
 tcatggaggt ttcttcaca ttattaacaa cattctgatt attggtgaat attcccatgg  
 1440  
 ctacaaaaca cctgtaagtt agatctgcac ggacggtgag cacaggactg tggttacccc  
 1500  
 cttagccaag caaacaactt ttttttttca ggagctaatt tttgttcagg ttgcattttc  
 1560  
 ccagcgcagc actacagatg gcacacactt tctgacagca ccaggcccca ccctggcctc  
 1620  
 ctagcaaact gagggctgcc tagggttcca gttccactc acctc  
 1665

&lt;210&gt; 3318

&lt;211&gt; 253

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3318

Met	Glu	Ala	Lys	Thr	Arg	Glu	Leu	Ile	Ala	Arg	Arg	Thr	Thr	Pro	Leu
1			5					10						15	
Leu	Glu	Tyr	Ile	Lys	Asn	Arg	Lys	Leu	Glu	Lys	Gln	Arg	Ile	Arg	Glu
			20					25					30		
Glu	Lys	Arg	Glu	Glu	Arg	Arg	Arg	Glu	Leu	Glu	Lys	Lys	Arg	Leu	

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      35              40              45
Arg Glu Glu Glu Lys Arg Arg Arg Arg Glu Glu Glu Arg Cys Lys Lys
  50              55              60
Lys Glu Thr Asp Lys Gln Lys Lys Ile Ala Glu Lys Glu Val Arg Ile
  65              70              75              80
Lys Leu Leu Lys Lys Pro Glu Lys Gly Glu Glu Pro Thr Thr Glu Lys
      85              90              95
Pro Lys Glu Arg Gly Glu Glu Ile Asp Thr Gly Gly Gly Lys Gln Glu
  100              105              110
Ser Cys Ala Pro Gly Ala Val Val Lys Ala Arg Pro Met Glu Gly Ser
  115              120              125
Leu Glu Glu Pro Gln Glu Thr Ser His Ser Gly Ser Asp Lys Glu His
  130              135              140
Arg Asp Val Glu Arg Ser Gln Glu Gln Glu Ser Glu Ala Gln Arg Tyr
  145              150              155              160
His Val Asp Asp Gly Arg Arg His Arg Ala His His Glu Pro Glu Arg
      165              170              175
Leu Ser Arg Arg Ser Glu Asp Glu Gln Arg Trp Gly Lys Gly Pro Gly
  180              185              190
Gln Asp Arg Gly Lys Lys Gly Ser Gln Asp Ser Gly Ala Pro Gly Glu
  195              200              205
Ala Met Glu Arg Leu Gly Arg Ala Gln Arg Cys Asp Asp Ser Pro Ala
  210              215              220
Pro Arg Lys Glu Arg Leu Ala Asn Lys Val Phe Ile Lys Pro Lys Lys
  225              230              235              240
Lys Asn Val Ser Gly Cys Leu Lys Val Gln Ala Ala Cys
      245              250

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&lt;210&gt; 3319

&lt;211&gt; 1541

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3319

```

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  60
tcgggtctcc ccattctcca ggtcccttga actgcacagt cggaggccgt gggcggcggg
  120
ctctgcctcc gccgaggac agccggatcg cccctctgct tcccgcaact gccctgatca
  180
cccccgctcc cagcccttga gtgaacgtcc ttctgagcgg cttcctgggg tcctccccac
  240
gtcccaaagg ccggcaagat ggtgtccttg atgatctgtc gcttggtggt gctggtgttt
  300
gggatgctgt gtccagctta tgcttcttat aaggctgtga agaccaagaa cattctgtga
  360
tatgtgcggg ggatgatgta ctggattgtt tttgcactct tcatggcagc agagatcggt
  420
acagacattt ttatctctg gttccctttc tactatgaga tcaagatggc cttcgtgctg
  480
tggtgctctt caccctacac caagggcgcc agcctgcttt accgcaagtt tgtccaccgc
  540
tcctgtctcc gccatgagaa ggagatcgac gcgtacatcg tgcaggccaa ggagcgcagc
  600

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tacgagaccg tgctcagctt cgggaagcgg ggcctcaaca ttgccgcctc cgctgctgtg  
 660  
 caggctgccca ccaagagtca gggggcgctg gccggcaggc tgcggagctt ctccatgcag  
 720  
 gacctgcgct ccatctctga cgcacctgcc cctgcctacc atgacccccct ctacctggag  
 780  
 gaccaggtgt cccaccggag gccaccatt gggtagcggg ccgggggcct gcaggacagc  
 840  
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 900  
 cgagagaagc ccctaataccg cagccagagc ctgcgtgttg tcaagaggaa gccaccggtg  
 960  
 cgggagggca cctcgcgctc cctgaagggt cggacgagga aaaagactgt gccctcagac  
 1020  
 gtggacagct agggctctgct gcatctgccc ccttcttacc tcgtgccctg cagggtcca  
 1080  
 gggctatttg gagggacctt gggctgcaça tctggcctgc ctgcaccagc tgctggggc  
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 1200  
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 1260  
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 1320  
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 1380  
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 1440  
 tgtgtgtgtg agtgaggtca ggtttgcgag tgttttgata aataaatata taaaggggca  
 1500  
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa a  
 1541

&lt;210&gt; 3320

&lt;211&gt; 256

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3320

Val	Ser	Trp	Met	Ile	Cys	Arg	Leu	Val	Val	Leu	Val	Phe	Gly	Met	Leu
1				5				10						15	
Cys	Pro	Ala	Tyr	Ala	Ser	Tyr	Lys	Ala	Val	Lys	Thr	Lys	Asn	Ile	Arg
		20					25						30		
Glu	Tyr	Val	Arg	Trp	Met	Met	Tyr	Trp	Ile	Val	Phe	Ala	Leu	Phe	Met
		35				40					45				
Ala	Ala	Glu	Ile	Val	Thr	Asp	Ile	Phe	Ile	Ser	Trp	Phe	Pro	Phe	Tyr
	50					55				60					
Tyr	Glu	Ile	Lys	Met	Ala	Phe	Val	Leu	Trp	Leu	Leu	Ser	Pro	Tyr	Thr
65				70				75				80			
Lys	Gly	Ala	Ser	Leu	Leu	Tyr	Arg	Lys	Phe	Val	His	Pro	Ser	Leu	Ser
			85					90					95		
Arg	His	Glu	Lys	Glu	Ile	Asp	Ala	Tyr	Ile	Val	Gln	Ala	Lys	Glu	Arg
		100						105					110		
Ser	Tyr	Glu	Thr	Val	Leu	Ser	Phe	Gly	Lys	Arg	Gly	Leu	Asn	Ile	Ala

115	120	125
Ala Ser Ala Ala Val Gln Ala Ala Thr Lys Ser Gln Gly Ala Leu Ala		
130	135	140
Gly Arg Leu Arg Ser Phe Ser Met Gln Asp Leu Arg Ser Ile Ser Asp		
145	150	155
Ala Pro Ala Pro Ala Tyr His Asp Pro Leu Tyr Leu Glu Asp Gln Val		
165	170	175
Ser His Arg Arg Pro Pro Ile Gly Tyr Arg Ala Gly Gly Leu Gln Asp		
180	185	190
Ser Asp Thr Glu Asp Glu Cys Trp Ser Asp Thr Glu Ala Val Pro Arg		
195	200	205
Ala Pro Ala Arg Pro Arg Glu Lys Pro Leu Ile Arg Ser Gln Ser Leu		
210	215	220
Arg Val Val Lys Arg Lys Pro Pro Val Arg Glu Gly Thr Ser Arg Ser		
225	230	235
Leu Lys Val Arg Thr Arg Lys Lys Thr Val Pro Ser Asp Val Asp Ser		
245	250	255

&lt;210&gt; 3321

&lt;211&gt; 1536

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3321

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120
acgaatctgt cgtcggcggt gaccagcgag cagatgcgga cgcttttttc cttcctagga
180
gaaatcgagg agctgcggct ctacccccg gacaacgcac ctcttgcttt ttcctccaaa
240
gtatgttatg ttaagtttcg tgatccatca agtgttggcg tggcccagca tctaactaac
300
acggttttta ttgacagagc tctgatagtt gttccttggtg cagaaggtaa aatcccagag
360
gaatccaaag ccctctcttt attggctcct gtcaccaaca tgacaagtct gatgcctggg
420
gcaggattgc ttccaatacc gaccccaaat cctttgacta ctcttggtgt ttcacttagc
480
agtttgggag ctataccagc agcagcacta gaccccaaca ttgcaacact tggagagata
540
ccacagccac cacttatggg aaacgtggat ccttccaaaa tagatgaaat taggagaacg
600
gtttatgttg gaaatctgaa ttcccagaca acgacagctg atcaactact tgaatttttt
660
aaacaagttg gagaagtgaa gtttgcggtt ggcagaataa atcactccaa caatgcaata
720
gtaaaacccc ctgagatgac acctcaggct gcagctaagg agttagaaga agtaatgaag
780
cgagtacgag aagctcagtc atttatctca gcagctattg aaccagagtc tggaaagagc
840
aatgaaagaa aaggcggtcg atctcggtcc catactcgct caaaatccag gtctagctca
900

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 960  
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 1020  
 tcaagggaga gacggaagtc aaggagtcgt tcgcattcac gggacaagag aaaagacact  
 1080  
 cgagaaaaga tcaaggaaaa ggaaagagtg aaagagaaaag acagggaaaa ggagagagag  
 1140  
 agggaaaagg aacgtgaaaa agaaaaggaa cggggtaaaa acaaagaccg ggacaaggaa  
 1200  
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&lt;210&gt; 3322

&lt;211&gt; 454

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3322

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&lt;210&gt; 3323

&lt;211&gt; 949

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3323

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<212> PRT

<213> Homo sapiens

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<213> Homo sapiens

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<210> 3326

<211> 254

<212> PRT

<213> Homo sapiens

<400> 3326

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<212> DNA

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<400> 3327

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<210> 3328

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<212> PRT

<213> Homo sapiens

<400> 3328

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Ala	Glu	Asn	Lys	Thr	Val	Val	Ala	Pro	Met	Leu	Asp	Ser	Arg	Ala	Ala
			85						90					95	
Tyr	Ser	Asn	Phe	Trp	Cys	Gly	Met	Thr	Ser	Gln	Gly	Tyr	Tyr	Lys	Arg
		100						105						110	
Thr	Pro	Ala	Tyr	Ile	Pro	Ile	Arg	Lys	Arg	Asp	Arg	Arg	Gly	Cys	Phe
		115					120						125		
Ala	Val	Pro	Met	Val	His	Ser	Thr	Phe	Leu	Ile	Asp	Leu	Arg	Lys	Ala
		130				135					140				
Ala	Ser	Arg	Asn	Leu	Ala	Phe	Tyr	Pro	Pro	His	Pro	Asp	Tyr	Thr	Trp
145				150						155				160	
Ser	Phe	Asp	Asp	Ile	Ile	Val	Phe	Ala	Phe	Ser	Cys	Lys	Gln	Ala	Glu
			165						170					175	
Val	Gln	Met	Tyr	Val	Cys	Asn	Lys	Glu	Glu	Tyr	Gly	Phe	Leu	Pro	Val
		180					185						190		
Pro	Leu	Arg	Ala	His	Ser	Thr	Leu	Gln	Asp	Glu	Ala	Glu	Ser	Phe	Met
		195					200						205		
His	Val	Gln	Leu	Glu	Val	Met	Val	Lys	His	Pro	Pro	Ala	Glu	Pro	Ser
	210					215						220			
Arg	Phe	Ile	Ser	Ala	Pro	Thr	Lys	Thr	Pro	Asp	Lys	Met	Gly	Phe	Asp
225				230						235				240	
Glu	Val	Phe	Met	Ile	Asn	Leu	Arg	Arg	Arg	Gln	Asp	Arg	Arg	Glu	Arg
			245						250					255	
Met	Leu	Arg	Ala	Leu	Gln	Ala	Gln	Glu	Ile	Glu	Cys	Arg	Leu	Val	Glu

260 265 270  
 Ala Val Asp Gly Lys Ala Met Asn Thr Ser Gln Val Glu Ala Leu Gly  
 275 280 285  
 Ile Gln Met Leu Pro Gly Tyr Arg Asp Pro Tyr His Gly Arg Pro Leu  
 290 295 300  
 Thr Lys Gly Glu Leu Gly Cys Phe Leu Ser His Tyr Asn Ile Trp Lys  
 305 310 315 320  
 Glu Val Val Asp Arg Gly Leu Gln Lys Ser Leu Val Phe Glu Asp Asp  
 325 330 335  
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 Asp Val Glu Arg Glu Gly Leu Asp Trp Asp Leu Ile Tyr Val Gly Arg  
 355 360 365  
 Lys Arg Met Gln Val Glu His Pro Glu Lys Ala Val Pro Arg Val Arg  
 370 375 380  
 Asn Leu Val Glu Ala Asp Tyr Ser Tyr Trp Thr Leu Ala Tyr Val Ile  
 385 390 395 400  
 Ser Leu Gln Gly Ala Arg Lys Leu Leu Ala Ala Glu Pro Leu Ser Lys  
 405 410 415  
 Met Leu Pro Val Asp Glu Phe Leu Pro Val Met Phe Asp Lys His Pro  
 420 425 430  
 Val Ser Glu Tyr Lys Ala His Phe Ser Leu Arg Asn Leu His Ala Phe  
 435 440 445  
 Ser Val Glu Pro Leu Leu Ile Tyr Pro Thr His Tyr Thr Gly Asp Asp  
 450 455 460  
 Gly Tyr Val Ser Asp Thr Glu Thr Ser Val Val Trp Asn Asn Glu His  
 465 470 475 480  
 Val Lys Thr Asp Trp Asp Arg Ala Lys Ser Gln Lys Met Arg Glu Gln  
 485 490 495  
 Gln Ala Leu Ser Arg Glu Ala Lys Asn Ser Asp Val Leu Gln Ser Pro  
 500 505 510  
 Leu Asp Ser Ala Ala Arg Asp Glu Leu  
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&lt;210&gt; 3329

&lt;211&gt; 705

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3329

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 agctgccgcc tcctgggtgg ccctgggcct gtgggcaact ccacctttgc atggttctgg  
 120  
 aatgaccggc ggctgcacgc ggagcctgtg cccactctcg ccttcaccca cgtggctcgt  
 180  
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 360  
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 420

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 540  
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<210> 3330

<211> 235

<212> PRT

<213> Homo sapiens

<400> 3330

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		20						25				30			
Asn	Ser	Thr	Phe	Ala	Trp	Phe	Trp	Asn	Asp	Arg	Arg	Leu	His	Ala	Glu
		35					40					45			
Pro	Val	Pro	Thr	Leu	Ala	Phe	Thr	His	Val	Ala	Arg	Ala	Gln	Ala	Gly
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Met	Tyr	His	Cys	Leu	Ala	Glu	Leu	Pro	Thr	Gly	Ala	Ala	Ala	Ser	Ala
65				70						75				80	
Pro	Val	Met	Leu	Arg	Val	Leu	Tyr	Pro	Pro	Lys	Thr	Pro	Thr	Met	Met
			85						90					95	
Val	Phe	Val	Glu	Pro	Glu	Gly	Gly	Leu	Arg	Gly	Ile	Leu	Asp	Cys	Arg
			100					105					110		
Val	Asp	Ser	Glu	Pro	Leu	Ala	Ser	Leu	Thr	Leu	His	Leu	Gly	Ser	Arg
			115					120					125		
Leu	Val	Ala	Ser	Ser	Gln	Pro	Gln	Gly	Ala	Pro	Ala	Glu	Pro	His	Ile
						135						140			
His	Val	Leu	Ala	Ser	Pro	Asn	Ala	Leu	Arg	Val	Asp	Ile	Glu	Ala	Leu
145					150					155				160	
Arg	Pro	Ser	Asp	Gln	Gly	Glu	Tyr	Ile	Cys	Ser	Ala	Ser	Asn	Val	Leu
			165						170					175	
Gly	Ser	Ala	Ser	Thr	Ser	Thr	Tyr	Phe	Gly	Val	Arg	Ala	Leu	His	Arg
			180					185					190		
Leu	His	Gln	Phe	Gln	Gln	Leu	Leu	Trp	Val	Leu	Gly	Leu	Leu	Val	Gly
			195					200					205		
Leu	Leu	Leu	Leu	Leu	Leu	Gly	Leu	Gly	Ala	Cys	Tyr	Thr	Trp	Arg	Arg
			210			215						220			
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<210> 3331

<211> 1644

<212> DNA

<213> Homo sapiens

<400> 3331

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120  
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240  
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300  
tctgagatag tagatgttg agataaagtg tgggtgaagc ttattggccg agagatgaaa  
360  
aatgatagaa taaaagtatc cctctccatg aaggttgtca atcaaggagc tgggaaagac  
420  
cttgatccca acaatgtttc attgagcaag aagagaggcg gaggcgatcc ttccaggatt  
480  
acactgggca gaagatcacc cttgaggctg tcttgaacac tacctgcaag aagtgtggct  
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600  
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720  
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780  
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1140  
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1200  
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1260  
tctgtcctgg gccaaactgg gggatgatct tgctgcatcc aacatgggag cagagactgg  
1320  
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1380  
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1440  
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1500  
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1620



aaaaaaaaaa aaaaaaaaaa aaaa  
1644

<210> 3332

<211> 128

<212> PRT

<213> Homo sapiens

<400> 3332

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 20      25      30
Ile Lys Ile Pro Gly Cys Arg Lys Gln Gly Leu Val His Arg Thr His
 35      40      45
Met Ser Ser Cys Arg Val Asp Lys Pro Ser Glu Ile Val Asp Val Gly
 50      55      60
Asp Lys Val Trp Val Lys Leu Ile Gly Arg Glu Met Lys Asn Asp Arg
 65      70      75      80
Ile Lys Val Ser Leu Ser Met Lys Val Val Asn Gln Gly Thr Gly Lys
 85      90      95
Asp Leu Asp Pro Asn Asn Val Ser Leu Ser Lys Lys Arg Gly Gly Gly
100      105      110
Asp Pro Ser Arg Ile Thr Leu Gly Arg Arg Ser Pro Leu Arg Leu Ser
115      120      125
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<210> 3333

<211> 2422

<212> DNA

<213> Homo sapiens

<400> 3333

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120
actgttgaag ttggtgagga cctccacatg caccacgttc gtgaccggga gatgcctgaa
180
gctttggagt ttaacctttc tgccaatcca gagtcaagca caatattcca gaggaactct
240
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360
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420
gccatccagc attatcttac aatgacaata atatctgtga ccttgagat acctcatcat
480
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540
gcggtttcca ccgtgcacat tatgaagaaa agaaatggag gtgggagttt aaataactat
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tcctcctcca ttccatcgac tcccagcacc agccaggagg accctcagtt cagtgttctt
660
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720  
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780  
accatcggga gcggcagagc catccccatt aaacagggca tgctcttaaa gcgaagtggg  
840  
aaatggctga agacatggaa aaagaaatac gtcaccctgt gttccaatgg catgctcacc  
900  
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960  
acatctacca tcaaagtccc aggaaagtgg ccatccctag ccacatcggc ctgcacaccc  
1020  
atctccagct ctaaaagcaa tggcctatcc aaggacatgg acaccgggct gggtgactcc  
1080  
atatgcttca gccccagtat ctccagcacc accagcccca agctcaaccc gccccctct  
1140  
cctcatgcta ataaaaagaa acacctaaag aagaaaagca ccaacaactt tatgattgtg  
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1260  
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1320  
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1380  
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1920  
gcccacggga acacagcgt gacctagcc cggcaggcct ccagccagga gtgcatcaac  
1980  
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2160  
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2280

agataaaatg tgtgaaaaca tatttgaaat aaagttcata aatatgcaaa aaaaaaaaaa  
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<210> 3334

<211> 672

<212> PRT

<213> Homo sapiens

<400> 3334

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Ile	Tyr	Glu	Ala	Gly	Ala	Gly	Asp	Arg	Met	Ala	Gly	Ala	Pro	Met	Ala
			20					25					30		
Ala	Ala	Val	Gln	Pro	Ala	Glu	Val	Thr	Val	Glu	Val	Gly	Glu	Asp	Leu
		35					40					45			
His	Met	His	His	Val	Arg	Asp	Arg	Glu	Met	Pro	Glu	Ala	Leu	Glu	Phe
	50					55					60				
Asn	Leu	Ser	Ala	Asn	Pro	Glu	Ser	Ser	Thr	Ile	Phe	Gln	Arg	Asn	Ser
65				70						75				80	
Gln	Thr	Glu	Ala	Leu	Glu	Phe	Asn	Pro	Ser	Ala	Asn	Pro	Glu	Ala	Ser
			85						90					95	
Thr	Ile	Phe	Gln	Arg	Asn	Ser	Gln	Thr	Asp	Val	Val	Glu	Ile	Arg	Arg
			100					105					110		
Ser	Asn	Cys	Thr	Asn	His	Val	Ser	Ala	Val	Arg	Phe	Ser	Gln	Gln	Tyr
	115						120					125			
Ser	Leu	Cys	Ser	Thr	Ile	Phe	Leu	Asp	Asp	Ser	Thr	Ala	Ile	Gln	His
	130						135				140				
Tyr	Leu	Thr	Met	Thr	Ile	Ile	Ser	Val	Thr	Leu	Glu	Ile	Pro	His	His
145					150					155				160	
Ile	Thr	Gln	Arg	Asp	Ala	Asp	Arg	Thr	Leu	Ser	Ile	Pro	Asp	Glu	Gln
			165					170						175	
Leu	His	Ser	Phe	Ala	Val	Ser	Thr	Val	His	Ile	Met	Lys	Lys	Arg	Asn
			180					185					190		
Gly	Gly	Gly	Ser	Leu	Asn	Asn	Tyr	Ser	Ser	Ser	Ile	Pro	Ser	Thr	Pro
	195						200					205			
Ser	Thr	Ser	Gln	Glu	Asp	Pro	Gln	Phe	Ser	Val	Pro	Pro	Thr	Ala	Asn
	210					215					220				
Thr	Pro	Thr	Pro	Val	Cys	Lys	Arg	Ser	Met	Arg	Trp	Ser	Asn	Leu	Phe
225					230					235				240	
Thr	Ser	Glu	Lys	Gly	Ser	His	Pro	Asp	Lys	Glu	Arg	Lys	Ala	Pro	Glu
			245						250					255	
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	275						280					285			
Lys	Tyr	Val	Thr	Leu	Cys	Ser	Asn	Gly	Met	Leu	Thr	Tyr	Tyr	Ser	Ser
	290					295					300				
Leu	Gly	Asp	Tyr	Met	Lys	Asn	Ile	His	Lys	Lys	Glu	Ile	Asp	Leu	Gln
305					310					315				320	
Thr	Ser	Thr	Ile	Lys	Val	Pro	Gly	Lys	Trp	Pro	Ser	Leu	Ala	Thr	Ser

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Ser Thr Thr Ser Pro Lys Leu Asn Pro Pro Pro Ser Pro His Ala Asn
          370          375          380
Lys Lys Lys His Leu Lys Lys Lys Ser Thr Asn Asn Phe Met Ile Val
          385          390          395          400
Ser Ala Thr Gly Gln Thr Trp His Phe Glu Ala Thr Thr Tyr Glu Glu
          405          410          415
Arg Asp Ala Trp Val Gln Ala Ile Gln Ser Gln Ile Leu Ala Ser Leu
          420          425          430
Gln Ser Cys Glu Ser Ser Lys Ser Lys Ser Gln Leu Thr Ser Gln Ser
          435          440          445
Glu Ala Met Ala Leu Gln Ser Ile Gln Asn Met Arg Gly Asn Ala His
          450          455          460
Cys Val Asp Cys Glu Thr Gln Asn Pro Lys Trp Ala Ser Leu Asn Leu
          465          470          475          480
Gly Val Leu Met Cys Ile Glu Cys Ser Gly Ile His Arg Ser Leu Gly
          485          490          495
Thr Arg Leu Ser Arg Val Arg Ser Leu Glu Leu Asp Asp Trp Pro Val
          500          505          510
Glu Leu Arg Lys Val Met Ser Ser Ile Gly Asn Glu Leu Ala Asn Ser
          515          520          525
Ile Trp Glu Glu Ser Ser Gln Gly Arg Thr Lys Pro Ser Val Asp Ser
          530          535          540
Thr Arg Glu Glu Lys Glu Arg Trp Ile Arg Ser Lys Tyr Glu Glu Lys
          545          550          555          560
Leu Phe Leu Ala Pro Leu Pro Cys Thr Glu Leu Ser Leu Gly Gln Gln
          565          570          575
Leu Leu Arg Ala Thr Ala Asp Glu Asp Leu Gln Thr Ala Ile Leu Leu
          580          585          590
Leu Ala His Gly Ser Arg Glu Glu Val Asn Glu Thr Cys Gly Glu Gly
          595          600          605
Asp Gly Cys Thr Ala Leu His Leu Ala Cys Arg Lys Gly Asn Val Val
          610          615          620
Leu Ala Gln Leu Leu Ile Trp Tyr Gly Val Asp Val Met Ala Arg Asp
          625          630          635          640
Ala His Gly Asn Thr Ala Leu Thr Tyr Ala Arg Gln Ala Ser Ser Gln
          645          650          655
Glu Cys Ile Asn Val Leu Leu Gln Tyr Gly Cys Pro Asp Lys Cys Val
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&lt;210&gt; 3335

&lt;211&gt; 477

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3335

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120

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 tggccattcc tctagggtg ctggccacgg aagcctggcc gtgggttcgg cacctgctga  
 300  
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 360  
 tgccgggggc ccatctctct gcgggggtgtg cccagtggag ccaggcagtg cgactacacc  
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 477

<210> 3336

<211> 59

<212> PRT

<213> Homo sapiens

<400> 3336

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Arg	Cys	Ala	Glu	Cys	Arg	Ala	Pro	Ile	Ser	Leu	Arg	Gly	Val	Pro	Ser
			20					25					30		
Glu	Ala	Arg	Gln	Cys	Asp	Tyr	Thr	Gly	Gln	Tyr	Tyr	Cys	Ser	Pro	Cys
			35					40					45		
His	Trp	Asn	Ala	Leu	Ala	Val	Ile	Pro	Ala	Arg					
			50					55							

<210> 3337

<211> 679

<212> DNA

<213> Homo sapiens

<400> 3337

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 120  
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 180  
 agacagagac caaaacagaa gcggcaaacg gcaaaaacga agcagaatca atgcaagtta  
 240  
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 300  
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 aagatgttgg tcataccccc tctttcacccg tctgagtcga gaggacacca agccaaacaa  
 420  
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<210> 3338

<211> 102

<212> PRT

<213> Homo sapiens

<400> 3338

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Lys Glu Val Arg Trp Gly Ser Leu Ser Leu Ala Ser Lys Asp Thr Asp  
35 40 45  
Arg Val Arg Glu Arg Asp Arg Glu Arg His Arg Asp Arg Gln Arg Pro  
50 55 60  
Lys Gln Lys Arg Gln Thr Ala Lys Thr Lys Gln Asn Gln Cys Lys Leu  
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Glu Lys Lys Ile Lys Leu Asn Ile Arg Ala Gly Lys Ser His Leu Leu  
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Arg Ile Thr Pro Val Tyr  
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<210> 3339

<211> 1341

<212> DNA

<213> Homo sapiens

<400> 3339

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agaagccagt tccatccagg atccactatc tacacaccta tgttacaaca ttatatcaaa  
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tctggtatct gaagaaaaga tacacattta atatgttcat ttaagttacg ttttttgag  
240  
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300  
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540  
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660

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 780  
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<210> 3340

<211> 86

<212> PRT

<213> Homo sapiens

<400> 3340

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Ser	Val	Asn	Ile	Phe	Leu	Tyr	Gln	Asn	Cys	Tyr	Tyr	Ala	Ala	Phe	Ile
			20					25					30		
Trp	Ala	Gly	Phe	Ile	Ile	Leu	His	Cys	Glu	Ile	Ala	Leu	Gln	Cys	Ile
		35					40					45			
Thr	Thr	Ala	Arg	Arg	Thr	Tyr	Ile	Tyr	Ile	Tyr	Ile	Lys	Asn	Ile	Ser
	50					55				60					
Asp	Ser	Cys	Ile	Gln	Met	Ser	Lys	Val	Phe	Val	Ala	Thr	Tyr	Tyr	Ile
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<210> 3341

<211> 1132

<212> DNA

<213> Homo sapiens

<400> 3341

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 120

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 180  
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 240  
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 480  
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 660  
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 720  
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 1132

&lt;210&gt; 3342

&lt;211&gt; 308

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3342

Met Lys Arg Arg Ala Ser Asp Arg Gly Ala Gly Glu Thr Ser Ala Arg  
 1 5 10 15  
 Ala Lys Ala Leu Gly Ser Gly Ile Ser Gly Asn Asn Ala Lys Arg Ala  
 20 25 30  
 Gly Pro Phe Ile Leu Gly Pro Arg Leu Gly Asn Ser Pro Val Pro Ser  
 35 40 45  
 Ile Val Gln Cys Leu Ala Arg Lys Asp Gly Thr Asp Asp Phe Tyr Gln  
 50 55 60  
 Leu Lys Ile Leu Thr Leu Glu Glu Arg Gly Asp Gln Gly Ile Glu Ser  
 65 70 75 80  
 Gln Glu Glu Arg Gln Gly Lys Met Leu Leu His Thr Glu Tyr Ser Leu  
 85 90 95  
 Leu Ser Leu Leu His Thr Gln Asp Gly Val Val His His His Gly Leu



100 105 110  
 Phe Gln Asp Arg Thr Cys Glu Ile Val Glu Asp Thr Glu Ser Ser Arg  
 115 120 125  
 Met Val Lys Lys Met Lys Lys Arg Ile Cys Leu Val Leu Asp Cys Leu  
 130 135 140  
 Cys Ala His Asp Phe Ser Asp Lys Thr Ala Asp Leu Ile Asn Leu Gln  
 145 150 155 160  
 His Tyr Val Ile Lys Glu Lys Arg Leu Ser Glu Arg Glu Thr Val Val  
 165 170 175  
 Ile Phe Tyr Asp Val Val Arg Val Val Glu Ala Leu His Gln Lys Asn  
 180 185 190  
 Ile Val His Arg Asp Leu Lys Leu Gly Asn Met Val Leu Asn Lys Arg  
 195 200 205  
 Thr His Arg Ile Thr Ile Thr Asn Phe Cys Leu Gly Lys His Leu Val  
 210 215 220  
 Ser Glu Gly Asp Leu Leu Lys Asp Gln Arg Gly Ser Pro Ala Tyr Ile  
 225 230 235 240  
 Ser Pro Asp Val Leu Ser Gly Arg Pro Tyr Arg Gly Lys Pro Ser Asp  
 245 250 255  
 Met Trp Ala Leu Gly Val Val Leu Phe Thr Met Leu Tyr Gly Gln Phe  
 260 265 270  
 Pro Phe Tyr Asp Ser Ile Pro Gln Glu Leu Phe Arg Lys Ile Lys Ala  
 275 280 285  
 Ala Glu Tyr Thr Ile Pro Glu Asp Gly Arg Val Ser Glu Asn Thr Val  
 290 295 300  
 Cys Leu Ile Arg  
 305

&lt;210&gt; 3343

&lt;211&gt; 594

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3343

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<210> 3344  
 <211> 143  
 <212> PRT  
 <213> Homo sapiens

<400> 3344  
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 20 25 30  
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 35 40 45  
 Ser Ala Asp Leu Glu Ile Ile Asn Ala Thr Thr Gly Arg Arg Ser Cys  
 50 55 60  
 Gly Gly Pro Ser Arg Leu Cys Lys His Val Leu Ser Ala Arg Trp Ala  
 65 70 75 80  
 Arg Leu Tyr Gly Arg Leu Ser Thr Arg Thr Pro Ser Pro Gly Asp Thr  
 85 90 95  
 Pro Ser Met Tyr Cys Glu Ala Lys Leu Gly Ala His Thr Tyr Gln Ser  
 100 105 110  
 Val Lys Gln Gln Leu Phe Lys Ala Phe Gln Lys Ala Gly Leu Gly Thr  
 115 120 125  
 Trp Val Arg Lys Pro Pro Glu Gln Gln Gln Phe Leu Leu Thr Leu  
 130 135 140

<210> 3345  
 <211> 1149  
 <212> DNA  
 <213> Homo sapiens

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 420  
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<210> 3346

<211> 263

<212> PRT

<213> Homo sapiens

<400> 3346

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			20					25					30		
Glu	Glu	Val	Pro	Asp	Val	Thr	Pro	Glu	Glu	Ala	Leu	Pro	Glu	Leu	Pro
		35					40					45			
Pro	Gly	Glu	Pro	Glu	Phe	Arg	Cys	Pro	Glu	Arg	Val	Met	Asp	Leu	Gly
	50					55					60				
Leu	Ser	Glu	Asp	His	Phe	Ser	Arg	Pro	Val	Gly	Leu	Phe	Leu	Ala	Ser
65				70						75				80	
Asp	Val	Gln	Gln	Leu	Arg	Gln	Ala	Ile	Glu	Glu	Cys	Lys	Gln	Val	Ile
			85					90					95		
Leu	Glu	Leu	Pro	Glu	Gln	Ser	Glu	Lys	Gln	Lys	Asp	Ala	Val	Val	Arg
		100					105					110			
Leu	Ile	His	Leu	Arg	Leu	Lys	Leu	Gln	Glu	Leu	Lys	Asp	Pro	Asn	Glu
	115					120					125				
Asp	Glu	Pro	Asn	Ile	Arg	Val	Leu	Leu	Glu	His	Arg	Phe	Tyr	Lys	Glu
	130					135					140				
Lys	Ser	Lys	Ser	Val	Lys	Gln	Thr	Cys	Asp	Lys	Cys	Asn	Thr	Ile	Ile
145				150					155					160	
Trp	Gly	Leu	Ile	Gln	Thr	Trp	Tyr	Thr	Cys	Thr	Gly	Cys	Tyr	Tyr	Arg
			165					170					175		
Cys	His	Ser	Lys	Cys	Leu	Asn	Leu	Ile	Ser	Lys	Pro	Cys	Val	Ser	Ser
		180					185					190			
Lys	Val	Ser	His	Gln	Ala	Glu	Tyr	Glu	Leu	Asn	Ile	Cys	Pro	Glu	Thr
	195					200						205			
Gly	Leu	Asp	Ser	Gln	Asp	Tyr	Arg	Cys	Ala	Glu	Cys	Arg	Ala	Pro	Ile
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<210> 3347
<211> 2267
<212> DNA
<213> Homo sapiens
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 1380  
 tgggaattct gtactgctgc tcatgggtgt agtcgggttct agaggggtgg gcagggtggga  
 1440  
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 1500  
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 1560  
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 1740  
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 1800  
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 1920  
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 1980  
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 2040  
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 2160  
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 2267  
 <210> 3348  
 <211> 288  
 <212> PRT  
 <213> Homo sapiens

<400> 3348  
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 Gln Val Ala Trp Tyr Asn Glu Leu Leu Pro Pro Ala Phe His Leu Pro  
 35 40 45  
 Leu Pro Gly Pro Thr Leu Ala Phe Leu Val Leu Ser Thr Pro Ala Met  
 50 55 60  
 Phe Asp Arg Ala Leu Lys Pro Phe Leu Gln Ser Cys His Leu Arg Met  
 65 70 75 80  
 Leu Thr Asp Pro Val Asp Gln Cys Val Ala Tyr His Leu Gly Arg Val  
 85 90 95  
 Gly Glu Ser Leu Pro Glu Leu Gln Ile Glu Ile Ile Ala Asp Tyr Glu  
 100 105 110

Val His Pro Asn Arg Arg Pro Lys Ile Leu Ala Gln Thr Ala Ala His  
 115 120 125  
 Val Ala Gly Ala Ala Tyr Tyr Tyr Gln Arg Gln Asp Val Glu Ala Asp  
 130 135 140  
 Pro Trp Gly Asn Gln Arg Ile Ser Gly Val Cys Ile His Pro Arg Phe  
 145 150 155 160  
 Gly Gly Trp Phe Ala Ile Arg Gly Val Val Leu Leu Pro Gly Ile Glu  
 165 170 175  
 Val Pro Asp Leu Pro Pro Arg Lys Pro His Asp Cys Val Pro Thr Arg  
 180 185 190  
 Ala Asp Arg Ile Ala Leu Leu Glu Gly Phe Asn Phe His Trp Arg Asp  
 195 200 205  
 Trp Thr Tyr Arg Asp Ala Val Thr Pro Gln Glu Arg Tyr Ser Glu Glu  
 210 215 220  
 Gln Lys Ala Tyr Phe Ser Thr Pro Pro Ala Gln Arg Leu Ala Leu Leu  
 225 230 235 240  
 Gly Leu Ala Gln Pro Ser Glu Lys Pro Ser Ser Pro Ser Pro Asp Leu  
 245 250 255  
 Pro Phe Thr Thr Pro Ala Pro Lys Lys Pro Gly Asn Pro Ser Arg Ala  
 260 265 270  
 Arg Ser Trp Leu Ser Pro Arg Val Ser Pro Pro Ala Ser Pro Gly Pro  
 275 280 285

&lt;210&gt; 3349

&lt;211&gt; 1132

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3349

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 120  
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 aagaagctgt ttgaagagga gaaattgctg agacaagaag gaaaattaga gaagatccag  
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 420  
 aagaacaatg tcaaatggga gctgaaccct gaaatagttg cccgccactt ctttaagaat  
 480  
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 660  
 gccaaaggcta tggccccac cagccccag atctaaatct actctccctc caaggcagca  
 720

aagcagaatc gggagcagtg gagcagaaat gtgcaagcac cctgatctca ctcccagctc  
 780  
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 900  
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 960  
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 1020  
 ccagtacttg cctcattctc atcatccaaa ctgaacattt gtatcccaag cagaaataaa  
 1080  
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 1132

&lt;210&gt; 3350

&lt;211&gt; 174

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3350

Gly	Pro	Gly	Arg	Gly	Ala	Ser	Ser	Gln	Ala	Asp	Val	Gly	Val	Arg	Gly
1				5				10						15	
Asp	Leu	Val	Ser	Val	Lys	Lys	Ser	Leu	Gly	Arg	Asn	Arg	Leu	Leu	Pro
			20					25					30		
Gln	Gly	Leu	Ala	Val	Tyr	Ala	Ser	Pro	Glu	Asn	Lys	Lys	Leu	Phe	Glu
		35					40					45			
Glu	Glu	Lys	Leu	Leu	Arg	Gln	Glu	Gly	Lys	Leu	Glu	Lys	Ile	Gln	Thr
	50					55					60				
Lys	Ala	Gly	Glu	Ala	Thr	Val	Lys	Phe	Leu	Lys	Ser	Cys	Arg	Leu	Glu
65					70					75				80	
Val	Gly	Met	Lys	Asn	Asn	Val	Lys	Trp	Glu	Leu	Asn	Pro	Glu	Ile	Val
			85					90						95	
Ala	Arg	His	Phe	Phe	Lys	Asn	Leu	Gly	Val	Val	Val	Ala	Pro	His	Thr
			100					105						110	
Leu	Lys	Leu	Pro	Ala	Glu	Pro	Ile	Thr	Arg	Trp	Gly	Glu	Tyr	Trp	Cys
		115					120					125			
Glu	Val	Thr	Val	Asn	Gly	Leu	Asp	Thr	Val	Arg	Val	Pro	Met	Ser	Val
	130					135					140				
Val	Asn	Phe	Glu	Lys	Pro	Lys	Thr	Lys	Arg	Tyr	Lys	Tyr	Trp	Leu	Ala
145					150					155				160	
Gln	Gln	Ala	Ala	Lys	Ala	Met	Ala	Pro	Thr	Ser	Pro	Gln	Ile		
				165					170						

&lt;210&gt; 3351

&lt;211&gt; 1422

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3351

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 180  
 gctgctgcgc cgcgatgcgc tgagcgccgc caaggagggtg ttgtaccacc tggacatcta  
 240  
 cttcagcagc cagctgcaga gcgcgcccgt gcccatcgtg gacaagggcc ccgtggagct  
 300  
 gctggaggag ttcgtgttcc aggtgcccga ggagcgagc gcgcagccca agagactgaa  
 360  
 ttcccttcag gagcttcaac ttcttgaaat catgtgcaat tatttccagg agcaaaccga  
 420  
 ggactctgtt cggcagatta ttttttcac ctttttcagc cctcaaggga acaaagccga  
 480  
 tgacagccgg atgagcttgt tgggaaaact ggtctccatg gcggtggctg tgtgtcgaat  
 540  
 cccggtgttg gagtgtgctg cctcctggct tcagcggacg ccggtggttt actgtgtgag  
 600  
 gttagccaag gccctttag atgactactg ctgtttggtg ccgggatcca ttcagacgct  
 660  
 gaagcagata ttcagtgccg gcccgagatt ctgctgccag ttcacacct ccgttaccgc  
 720  
 gctctatgac ctgtcatcag atgacctcat tccacctatg gacttgcttg aaatgattgt  
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 960  
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 ctcaaaactc cacctcagcg tctgcaagt gctcatgacg ctgcagctgc acctgaccga  
 1080  
 gaagaatctg tatggcgccc tggggctgat cctcttcgac cacatgggtc cgctggtaga  
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 1200  
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 1260  
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 1320  
 ggtgatctcg ggtcccgctg agcagctgcc tcacgcgcg cccccccgg ggttctaccc  
 1380  
 ccacatccac acgccccgc tgggtacgg ggtgtcccc cc  
 1422

&lt;210&gt; 3352

&lt;211&gt; 97

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3352

Met Trp Pro Ser Gln Leu Leu Ile Phe Met Met Leu Leu Ala Pro Ile  
 1 5 10 15  
 Ile His Gly Gly Lys His Ser Glu Arg His Pro Ala Leu Ala Ala Ala



```

                20                25                30
Pro Arg Cys Ala Glu Arg Arg Gln Gly Gly Val Val Pro Pro Gly His
      35                40                45
Leu Leu Gln Gln Pro Ala Ala Glu Arg Ala Ala Ala His Arg Gly Gln
      50                55                60
Gly Pro Arg Gly Ala Ala Gly Gly Val Arg Val Pro Gly Ala Gln Gly
      65                70                75                80
Ala Gln Arg Ala Ala Gln Glu Thr Glu Phe Pro Ser Gly Ala Ser Thr
      85                90                95
Ser

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<210> 3353  
 <211> 420  
 <212> DNA  
 <213> Homo sapiens

```

<400> 3353
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120
ggctccctac ctgacctcac caacctgcac tttccccac cactgcccac cccctggac
180
cctgaagaga cagcctaccc tagcctgagt gggggcaaca gtacctcaa ttgacccac
240
accatgactc acctgggcat cagcaggggc atgggcctgg gcccaggcta tgatgcacca
300
gggcgtcccc ctggatacca gtaaaactgtc cactgaccag cggttacccc catacccata
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cagttcccca agtttggtn tctgcttacc agccccacac cccaaagttt taacagcagc
420

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<210> 3354  
 <211> 107  
 <212> PRT  
 <213> Homo sapiens

```

<400> 3354
Xaa Lys Leu Ser Ser Ser Ser Arg Pro Arg Ser Cys Glu Val Pro
1      5      10      15
Gly Ile Asn Ile Phe Pro Ser Pro Asp Gln Pro Ala Asn Val Pro Val
      20      25      30
Leu Pro Pro Ala Met Asn Thr Gly Gly Ser Leu Pro Asp Leu Thr Asn
      35      40      45
Leu His Phe Pro Pro Pro Leu Pro Thr Pro Leu Asp Pro Glu Glu Thr
      50      55      60
Ala Tyr Pro Ser Leu Ser Gly Gly Asn Ser Thr Ser Asn Leu Thr His
      65      70      75      80
Thr Met Thr His Leu Gly Ile Ser Arg Gly Met Gly Leu Gly Pro Gly
      85      90      95
Tyr Asp Ala Pro Gly Arg Pro Pro Gly Tyr Gln
      100      105

```

<210> 3355  
 <211> 474  
 <212> DNA  
 <213> Homo sapiens

<400> 3355  
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 60  
 gtaagattat ctccagccaa aatgtcaacc aagaattcta cagatctagt tgaatatgtt  
 120  
 gacaagagtc atgcttttct ccccatcatt ccaaacaccc agagaggtca gctagaagac  
 180  
 agactgaaca accaggcgcg taccatagct ttccttcttg aacaagcctt ccgcatcaag  
 240  
 gaggacatct ctgcttgctt gcaggggacc catggctttc gaaaagagga atcgctcgcc  
 300  
 aggaagtac tggaaagcca catccagacc atcaccagca tcgtcaaaaa actcagccaa  
 360  
 aatattgaga ttttagaaga ccaaataaga gctcgagatc aggcggccac aggaactaac  
 420  
 tttgcagtac acgagataaa catcaaacac ctacaaggag ttgggagatc tttc  
 474

<210> 3356  
 <211> 131  
 <212> PRT  
 <213> Homo sapiens

<400> 3356  
 Met Ser Thr Lys Asn Ser Thr Asp Leu Val Glu Tyr Val Asp Lys Ser  
 1 5 10 15  
 His Ala Phe Leu Pro Ile Ile Pro Asn Thr Gln Arg Gly Gln Leu Glu  
 20 25 30  
 Asp Arg Leu Asn Asn Gln Ala Arg Thr Ile Ala Phe Leu Leu Glu Gln  
 35 40 45  
 Ala Phe Arg Ile Lys Glu Asp Ile Ser Ala Cys Leu Gln Gly Thr His  
 50 55 60  
 Gly Phe Arg Lys Glu Glu Ser Leu Ala Arg Lys Leu Leu Glu Ser His  
 65 70 75 80  
 Ile Gln Thr Ile Thr Ser Ile Val Lys Lys Leu Ser Gln Asn Ile Glu  
 85 90 95  
 Ile Leu Glu Asp Gln Ile Arg Ala Arg Asp Gln Ala Ala Thr Gly Thr  
 100 105 110  
 Asn Phe Ala Val His Glu Ile Asn Ile Lys His Leu Gln Gly Val Gly  
 115 120 125  
 Arg Ser Phe  
 130

<210> 3357  
 <211> 2268  
 <212> DNA  
 <213> Homo sapiens

<400> 3357

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60  
agcagccatt atggatttgg atgtgctctt tatacccatg tctctaattg cagatggagg  
120  
agggcctata aaaataattc cttcttgctt acaaagttca gcaaattcca tgttttctga  
180  
aagaaaaccg catcctggat ggatagcctg tgcagcagag gtcttgcca cttgaatgat  
240  
tttctccata gataggtagc tctgctggga ggaacgggtt tggcgtgtgg gacgcagctg  
300  
cctctgtact ggggagtcac ggagtggccg ggctccaggg acatggcggc ggcctctgcy  
360  
gtgtcgggtg tgctgggtgg ggcggagagg aaccgggtgg atcgtctccc gagcctgctc  
420  
ctgccgccga ggacatgggt gtggaggcaa agaaccatga agtacacaac agccacagga  
480  
agaaacatta ccaaggctct cattgcaaac agaggagaaa ttgcctgcag ggtgatgcgc  
540  
acagccaaaa aactgggtgt acagactgtg gcggtttata gtgaggctga cagaaattcc  
600  
atgcatgtag atatggcaga tgaagcatat tccatcggcc ccgctccctc ccagcagagc  
660  
tacctatcta tggagaaaat cattcaagtg gccaaagacct ctgctgcaca ggctatccat  
720  
ccaggatgcy gttttctttc agaaaacatg gaatttgctg aactttgtaa gcaagaagga  
780  
attattttta taggccctcc tccatctgca attagagaca tgggtataaa gagcacatcc  
840  
aaatccataa tggctgctgc tggagtacct gttgtggagg gttatcatgg tgaggaccaa  
900  
tcagaccagt gcctgaagga acacgccagg agaattggct atcctgtcat gattaaagcc  
960  
gtccgggggtg gaggaggaaa aggaatgagg attgttagat cagaacaaga atttcaagaa  
1020  
cagtttagagt cagcacggag agaagctaag agtctttca atgatgatgc tatgctgac  
1080  
gagaagtttg tagacacacc gaggcattga gaagtccagg tgtttggtga tcaccatggc  
1140  
aatgctgtgt acttgtttga aagagactgt agtgtgcaga ggcgacatca gaagatcatt  
1200  
gaggaggccc cagcgcttg tattaatct gaagtaagaa aaaagctggg agaagctgca  
1260  
gtcagagctg ctaaagctgt aaattatgtt ggagcaggga ctgtggagtt tattatggac  
1320  
tcaaaacata atttctgttt catggagatg aatacaaggc tgcaagtgga acatcctggt  
1380  
actgagatga tcacaggaac tgacttggtg gagtggcagc ttagaattgc agcaggagag  
1440  
aagattcctt tgagccagga agaaataact ctgcagggcc atgccttcga agctagaata  
1500  
tatgcagaag atcctagcaa taacttcatg cctgtggcag gccattagt gcacctctct  
1560  
actcctcgag cagacccttc caccaggatt gaaactggag tacggcaagg agacgaagtt  
1620

tccgtgcatt atgaccccat gattgcgaag ctggtcgtgt gggcagcaga tcgccaggcg  
 1680  
 gcattgacaa aactgaggta cagccttcgt cagtacaata ttgttggact gcacaccaac  
 1740  
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 1800  
 gatttcaccc ctcaacacca caaacagttg ttgtcagtc ggaaggctgc agccaaagag  
 1860  
 tctttatgcc aggcagccct gggctctcctc ctcaaggaga aagccatgac cgacactttc  
 1920  
 actcttcagg cacatgatca attctctcca ttttcgtcta gcagtgaag aagactgaat  
 1980  
 atctcgtata ccagaaacat gactcttaaa gatggtaaaa acagttttcg tctcctcgga  
 2040  
 taatcaacca ttccatact catgtaatct aggcatactc tggagttatt acaggtttgg  
 2100  
 ttccagacca ctacaataaa atgtagccat agctgtaacg tataaccatg atgggtctta  
 2160  
 tagcatgcag attgaagata aaactttcca agtccttggt aatctttaca gcgagggaga  
 2220  
 ctgcacttac ctgaaatggt ctgttaatgg agttgctagt aaagcgaa  
 2268

&lt;210&gt; 3358

&lt;211&gt; 493

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3358

Gln	Thr	Val	Ala	Val	Tyr	Ser	Glu	Ala	Asp	Arg	Asn	Ser	Met	His	Val
1				5					10					15	
Asp	Met	Ala	Asp	Glu	Ala	Tyr	Ser	Ile	Gly	Pro	Ala	Pro	Ser	Gln	Gln
			20						25				30		
Ser	Tyr	Leu	Ser	Met	Glu	Lys	Ile	Ile	Gln	Val	Ala	Lys	Thr	Ser	Ala
		35					40					45			
Ala	Gln	Ala	Ile	His	Pro	Gly	Cys	Gly	Phe	Leu	Ser	Glu	Asn	Met	Glu
	50					55				60					
Phe	Ala	Glu	Leu	Cys	Lys	Gln	Glu	Gly	Ile	Ile	Phe	Ile	Gly	Pro	Pro
65					70				75					80	
Pro	Ser	Ala	Ile	Arg	Asp	Met	Gly	Ile	Lys	Ser	Thr	Ser	Lys	Ser	Ile
			85					90					95		
Met	Ala	Ala	Ala	Gly	Val	Pro	Val	Val	Glu	Gly	Tyr	His	Gly	Glu	Asp
			100					105					110		
Gln	Ser	Asp	Gln	Cys	Leu	Lys	Glu	His	Ala	Arg	Arg	Ile	Gly	Tyr	Pro
	115					120						125			
Val	Met	Ile	Lys	Ala	Val	Arg	Gly	Gly	Gly	Gly	Lys	Gly	Met	Arg	Ile
	130					135					140				
Val	Arg	Ser	Glu	Gln	Glu	Phe	Gln	Glu	Gln	Leu	Glu	Ser	Ala	Arg	Arg
145				150						155				160	
Glu	Ala	Lys	Lys	Ser	Phe	Asn	Asp	Asp	Ala	Met	Leu	Ile	Glu	Lys	Phe
			165					170					175		
Val	Asp	Thr	Pro	Arg	His	Val	Glu	Val	Gln	Val	Phe	Gly	Asp	His	His
			180					185					190		
Gly	Asn	Ala	Val	Tyr	Leu	Phe	Glu	Arg	Asp	Cys	Ser	Val	Gln	Arg	Arg

195	200	205
His Gln Lys Ile Ile Glu Glu Ala Pro Ala Pro Gly Ile Lys Ser Glu		
210	215	220
Val Arg Lys Lys Leu Gly Glu Ala Ala Val Arg Ala Ala Lys Ala Val		
225	230	235
Asn Tyr Val Gly Ala Gly Thr Val Glu Phe Ile Met Asp Ser Lys His		
245	250	255
Asn Phe Cys Phe Met Glu Met Asn Thr Arg Leu Gln Val Glu His Pro		
260	265	270
Val Thr Glu Met Ile Thr Gly Thr Asp Leu Val Glu Trp Gln Leu Arg		
275	280	285
Ile Ala Ala Gly Glu Lys Ile Pro Leu Ser Gln Glu Glu Ile Thr Leu		
290	295	300
Gln Gly His Ala Phe Glu Ala Arg Ile Tyr Ala Glu Asp Pro Ser Asn		
305	310	315
Asn Phe Met Pro Val Ala Gly Pro Leu Val His Leu Ser Thr Pro Arg		
325	330	335
Ala Asp Pro Ser Thr Arg Ile Glu Thr Gly Val Arg Gln Gly Asp Glu		
340	345	350
Val Ser Val His Tyr Asp Pro Met Ile Ala Lys Leu Val Val Trp Ala		
355	360	365
Ala Asp Arg Gln Ala Ala Leu Thr Lys Leu Arg Tyr Ser Leu Arg Gln		
370	375	380
Tyr Asn Ile Val Gly Leu His Thr Asn Ile Asp Phe Leu Leu Asn Leu		
385	390	395
Ser Gly His Pro Glu Phe Glu Ala Gly Asn Val His Thr Asp Phe Ile		
405	410	415
Pro Gln His His Lys Gln Leu Leu Leu Ser Arg Lys Ala Ala Lys		
420	425	430
Glu Ser Leu Cys Gln Ala Ala Leu Gly Leu Ile Leu Lys Glu Lys Ala		
435	440	445
Met Thr Asp Thr Phe Thr Leu Gln Ala His Asp Gln Phe Ser Pro Phe		
450	455	460
Ser Ser Ser Ser Gly Arg Arg Leu Asn Ile Ser Tyr Thr Arg Asn Met		
465	470	475
Thr Leu Lys Asp Gly Lys Asn Ser Phe Arg Leu Leu Gly		
485	490	

&lt;210&gt; 3359

&lt;211&gt; 652

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3359

```

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60
gcctatacct actgtagctt ctccacgtat ggaccctaaa ggctactgct gctactacgg
120
ggctagacag ttactgtctc agctctagga tgtgcgttct tccactagaa gctcttctga
180
gggaggtaat taaaaaacag tggaatggaa aaacagtgtc gtagtcatcc tgtaatatgc
240
tccttgtcaa caatgtatac attcctgcta ggtgccatat tcattgcttt aagctcaagt
300

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cgcattctac tagtgaagta ttctgccaat gaagaaaaca agtatgatta tcttccaact  
 360  
 actgtgaatg tgtgctcaga actggtgaag ctatgtttct gtgtgcttgt gtcattctgt  
 420  
 gttataaaga aagatcatca aagtagaaat ttgaaatag cttcctggaa ggaattctct  
 480  
 gatttcatga agtgggccat tctgccttt ctttatttcc tggataactt gattgtcttc  
 540  
 tatgtcctgt cctatcttca accagccatg gctgttatct tctcaaattt tagcattata  
 600  
 acaacagctc ttctattcag gatagtgtg aagaggcgtc taaactggat cc  
 652

<210> 3360

<211> 149

<212> PRT

<213> Homo sapiens

<400> 3360

Met	Glu	Lys	Gln	Cys	Cys	Ser	His	Pro	Val	Ile	Cys	Ser	Leu	Ser	Thr
1				5					10				15		
Met	Tyr	Thr	Phe	Leu	Leu	Gly	Ala	Ile	Phe	Ile	Ala	Leu	Ser	Ser	Ser
			20					25				30			
Arg	Ile	Leu	Leu	Val	Lys	Tyr	Ser	Ala	Asn	Glu	Glu	Asn	Lys	Tyr	Asp
		35					40					45			
Tyr	Leu	Pro	Thr	Thr	Val	Asn	Val	Cys	Ser	Glu	Leu	Val	Lys	Leu	Val
	50					55					60				
Phe	Cys	Val	Leu	Val	Ser	Phe	Cys	Val	Ile	Lys	Lys	Asp	His	Gln	Ser
65					70					75				80	
Arg	Asn	Leu	Lys	Tyr	Ala	Ser	Trp	Lys	Glu	Phe	Ser	Asp	Phe	Met	Lys
			85					90						95	
Trp	Ser	Ile	Pro	Ala	Phe	Leu	Tyr	Phe	Leu	Asp	Asn	Leu	Ile	Val	Phe
			100					105					110		
Tyr	Val	Leu	Ser	Tyr	Leu	Gln	Pro	Ala	Met	Ala	Val	Ile	Phe	Ser	Asn
		115					120					125			
Phe	Ser	Ile	Ile	Thr	Thr	Ala	Leu	Leu	Phe	Arg	Ile	Val	Leu	Lys	Arg
	130					135					140				
Arg	Leu	Asn	Trp	Ile											
145															

<210> 3361

<211> 1040

<212> DNA

<213> Homo sapiens

<400> 3361

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 120  
 ggagtcgcct gcgcgcgcag cggaggccag tgcgccggcg catagcgagc ccgggtctgt  
 180  
 gatcgccgag gcgggagtga agatagtcca agtcctaaga gacagcgcct ctctcattca  
 240

gtctttgatt atacatcagc atcaccagct cctcaccac caatgcgacc atgggagatg  
 300  
 acatcaaata ggcagccccc ttcagttcga ccaagccaac atcacttctc aggggaacga  
 360  
 tgcaacacac ctgcacgcaa cagaagaagt cctcctgtca ggcgccagag aggaagaagg  
 420  
 gatcgtctgt ctcgacataa ttccattagt caagatgaaa actatcacca tctcccttac  
 480  
 gcacagcagc aagcaataga ggagcctcga gccttccacc ctccgaatgt atctccccgt  
 540  
 ctgctacatc ctgctgctca tccaccccag cagaatgcag tcatgggtga catacatgat  
 600  
 cagctccatc aaggaacagt cctgtttct tacacagtaa caacagtggc accacatggg  
 660  
 attccactct gcacaggcca gcacatccct gctttagta cacagcaggt cccaggatgc  
 720  
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 780  
 gcatgttcag ttcagcactt accagtacca tatgtgcat tcccacctt tatttctagt  
 840  
 gatccatttc ttatacatcc tctcacctt tctcccac atcctcctca ttgcccacca  
 900  
 ccaggccagt ttgtcccttt ccaaacacag caatcacgat cgcctctgca aaggatagaa  
 960  
 aatgaagtgg aactcttagg agaacatctt ccaggagccc acccccagea ccccatctg  
 1020  
 ttaataaata tctcaactcc  
 1040

&lt;210&gt; 3362

&lt;211&gt; 252

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3362

Met	Arg	Pro	Trp	Glu	Met	Thr	Ser	Asn	Arg	Gln	Pro	Pro	Ser	Val	Arg
1				5				10					15		
Pro	Ser	Gln	His	His	Phe	Ser	Gly	Glu	Arg	Cys	Asn	Thr	Pro	Ala	Arg
			20					25					30		
Asn	Arg	Arg	Ser	Pro	Pro	Val	Arg	Arg	Gln	Arg	Gly	Arg	Arg	Asp	Arg
			35					40					45		
Leu	Ser	Arg	His	Asn	Ser	Ile	Ser	Gln	Asp	Glu	Asn	Tyr	His	His	Leu
			50					55					60		
Pro	Tyr	Ala	Gln	Gln	Gln	Ala	Ile	Glu	Glu	Pro	Arg	Ala	Phe	His	Pro
						70					75				80
Pro	Asn	Val	Ser	Pro	Arg	Leu	Leu	His	Pro	Ala	Ala	His	Pro	Pro	Gln
						85				90					95
Gln	Asn	Ala	Val	Met	Val	Asp	Ile	His	Asp	Gln	Leu	His	Gln	Gly	Thr
			100					105					110		
Val	Pro	Val	Ser	Tyr	Thr	Val	Thr	Thr	Val	Ala	Pro	His	Gly	Ile	Pro
			115					120					125		
Leu	Cys	Thr	Gly	Gln	His	Ile	Pro	Ala	Cys	Ser	Thr	Gln	Gln	Val	Pro
			130					135					140		
Gly	Cys	Ser	Val	Val	Phe	Ser	Gly	Gln	His	Leu	Pro	Val	Cys	Ser	Val

```

145          150          155          160
Pro Pro Pro Met Leu Gln Ala Cys Ser Val Gln His Leu Pro Val Pro
          165          170          175
Tyr Ala Ala Phe Pro Pro Leu Ile Ser Ser Asp Pro Phe Leu Ile His
          180          185          190
Pro Pro His Leu Ser Pro His His Pro Pro His Leu Pro Pro Pro Gly
          195          200          205
Gln Phe Val Pro Phe Gln Thr Gln Gln Ser Arg Ser Pro Leu Gln Arg
          210          215          220
Ile Glu Asn Glu Val Glu Leu Leu Gly Glu His Leu Pro Gly Ala His
225          230          235          240
Pro Gln His Pro His Leu Leu Ile Asn Ile Ser Thr
          245          250

```

&lt;210&gt; 3363

&lt;211&gt; 718

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3363

```

cagaaggacc ccaggatggc ggtcatcatg cccaggaacg ttggtgatgg ggaatggggtt
60
ggccagcatg atcagggacc ccgtcatgcc catgattttt tgggtggcat tggcgaccga
120
gtagctcagg agtgtctccg gagccactg gagaagcccc ccaacggcct cctcttcccc
180
cagcacgggg actatcagta cggccgcaac aacatctaaa cagaccactt ccaatacagc
240
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300
aggaccagac tgttggtgac tccttccccg gccccacag cagtatcaga aacttctgac
360
aatcagtga tgtacaaccc agccgagggg acggtgcata actctccatc agaagccctg
420
gggttccttg cccccgtga gccgcaggag gatgcgttgc ctgcagtga gacggccgtg
480
agctctgggc aaacctaaac agagaccagt gtcccatgct ctttcttctt ggagcctgtc
540
atctgagggc cgtgtccctg cggagatctt ggccacgttg tacctttcca tgtggaatta
600
ttccccaagc agtgtagctc agagcacttg tgtctgcatt ccagataaca ttcaggacct
660
gtgtgaaaag ctgggggtcac tgtggctgta gaccatgaac tggcagtggg ggtgtcca
718

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&lt;210&gt; 3364

&lt;211&gt; 163

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3364

```

Met Gly His Trp Ser Leu Phe Arg Phe Ala Gln Ser Ser Arg Pro Ser
1          5          10          15
Ala Leu Gln Ala Thr His Pro Pro Ala Ala His Gly Gly Pro Gly Thr

```



```

<400> 3365
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120
tcgggtggca gcgccgggcg caacgcaggg gtcaaggcga cgggggcggc ggctgacggc
180
tggaagggtg ggcttcttc accgctcgtc ctcttcttc gctccgctcg gtgtcaggcg
240
cgggcgcggc gcggcgggcg gacttcgtcc ctctcctgc tccccccac accggagcgg
300
gcactcttcg ctctgccatc ccccgacctc tcaccccgag gactgggcgc ctctccggc
360
gcagctgagg gagcgggggc cggctctctg ctcggttgtc gagcctccat gtcggataat
420
cagaactgga actcgtcggg ctctggaggag gatccagaga cggagtctgg gccgcctgtg
480
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540
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600
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660
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720
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780
tccagcttgc gtcgacatgg ctcaatggtg tccctggtgt ctggagcaag tggctactct
840

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gcaacatcca cctcttcatt caagaaaggc cacagtttac gtgagaagtt ggctgaaatg  
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1020  
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1080  
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1620  
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1680  
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1740  
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1800  
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1920  
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1980  
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2040  
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2100  
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2160  
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2220  
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2280  
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2340  
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2389

&lt;210&gt; 3366

&lt;211&gt; 624

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3366

```

Met Ser Asp Asn Gln Asn Trp Asn Ser Ser Gly Ser Glu Glu Asp Pro
 1           5           10           15
Glu Thr Glu Ser Gly Pro Pro Val Glu Arg Cys Gly Val Leu Ser Lys
      20           25           30
Trp Thr Asn Tyr Ile His Gly Trp Gln Asp Arg Trp Val Val Leu Lys
      35           40           45
Asn Asn Ala Leu Ser Tyr Tyr Lys Ser Glu Asp Glu Thr Glu Tyr Gly
 50           55           60
Cys Arg Gly Ser Ile Cys Leu Ser Lys Ala Val Ile Thr Pro His Asp
65           70           75           80
Phe Asp Glu Cys Arg Phe Asp Ile Ser Val Asn Asp Ser Val Trp Tyr
      85           90           95
Leu Arg Ala Gln Asp Pro Asp His Arg Gln Gln Trp Ile Asp Ala Ile
      100          105          110
Glu Gln His Lys Thr Glu Ser Gly Tyr Gly Ser Glu Ser Ser Leu Arg
      115          120          125
Arg His Gly Ser Met Val Ser Leu Val Ser Gly Ala Ser Gly Tyr Ser
130          135          140
Ala Thr Ser Thr Ser Ser Phe Lys Lys Gly His Ser Leu Arg Glu Lys
145          150          155          160
Leu Ala Glu Met Glu Thr Phe Arg Asp Ile Leu Cys Arg Gln Val Asp
      165          170          175
Thr Leu Gln Lys Tyr Phe Asp Ala Cys Ala Asp Ala Val Ser Lys Asp
      180          185          190
Glu Leu Gln Arg Asp Lys Val Val Glu Asp Asp Glu Asp Asp Phe Pro
195          200          205
Thr Thr Arg Ser Asp Gly Asp Phe Leu His Ser Thr Asn Gly Asn Lys
210          215          220
Glu Lys Leu Phe Pro His Val Thr Pro Lys Gly Ile Asn Gly Ile Asp
225          230          235          240
Phe Lys Gly Glu Ala Ile Thr Phe Lys Ala Thr Thr Ala Gly Ile Leu
      245          250          255
Ala Thr Leu Ser His Cys Ile Glu Leu Met Val Lys Arg Glu Asp Ser
260          265          270
Trp Gln Lys Arg Leu Asp Lys Glu Thr Glu Lys Lys Arg Arg Thr Glu
275          280          285
Glu Ala Tyr Lys Asn Ala Met Thr Glu Leu Lys Lys Lys Ser His Phe
290          295          300
Gly Gly Pro Asp Tyr Glu Glu Gly Pro Asn Ser Leu Ile Asn Glu Glu
305          310          315          320
Glu Phe Phe Asp Ala Val Glu Ala Ala Leu Asp Arg Gln Asp Lys Ile
      325          330          335
Glu Glu Gln Ser Gln Ser Glu Lys Val Arg Leu His Trp Pro Thr Ser
340          345          350
Leu Pro Ser Gly Asp Ala Phe Ser Ser Val Gly Thr His Arg Phe Val
355          360          365
Gln Lys Pro Tyr Ser Arg Ser Ser Ser Met Ser Ser Ile Asp Leu Val
370          375          380
Ser Ala Ser Asp Asp Val His Arg Phe Ser Ser Gln Val Glu Glu Met

```

```

385          390          395          400
Val Gln Asn His Met Thr Tyr Ser Leu Gln Asp Val Gly Gly Asp Ala
          405          410          415
Asn Trp Gln Leu Val Val Glu Glu Gly Glu Met Lys Val Tyr Arg Arg-
          420          425          430
Glu Val Glu Glu Asn Gly Ile Val Leu Asp Pro Leu Lys Ala Thr His
          435          440          445
Ala Val Lys Gly Val Thr Gly His Glu Val Cys Asn Tyr Phe Trp Asn
          450          455          460
Val Asp Val Arg Asn Asp Trp Glu Thr Thr Ile Glu Asn Phe His Val
          465          470          475          480
Val Glu Thr Leu Ala Asp Asn Ala Ile Ile Ile Tyr Gln Thr His Lys
          485          490          495
Arg Val Trp Pro Ala Ser Gln Arg Asp Val Leu Tyr Leu Ser Val Ile
          500          505          510
Arg Lys Ile Pro Ala Leu Thr Glu Asn Asp Pro Glu Thr Trp Ile Val
          515          520          525
Cys Asn Phe Ser Val Asp His Asp Ser Ala Pro Leu Asn Asn Arg Cys
          530          535          540
Val Arg Ala Lys Ile Asn Val Ala Met Ile Cys Gln Thr Leu Val Ser
          545          550          555          560
Pro Pro Glu Gly Asn Gln Glu Ile Ser Arg Asp Asn Ile Leu Cys Lys
          565          570          575
Ile Thr Tyr Val Ala Asn Val Asn Pro Gly Gly Trp Ala Pro Ala Ser
          580          585          590
Val Leu Arg Ala Val Ala Lys Arg Glu Tyr Pro Lys Phe Leu Lys Arg
          595          600          605
Phe Thr Ser Tyr Val Gln Glu Lys Thr Ala Gly Lys Pro Ile Leu Phe
          610          615          620

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<210> 3367  
 <211> 366  
 <212> DNA  
 <213> Homo sapiens

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<400> 3367
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gagaattacg ccacagaggt gttggaggct ggcacgtgg catctcagga gcacggaggg
120
tgccttcccc acttcaggcc tcttagtgtc aaggatgtga gaggcaaggg ctgctgggag
180
agtatttttac ggactgaagg aggcgtgccg cctgccctgc cctcctactg gtggaggaag
240
gaggtgctgg gagccccaca actcagggcc ccccgacgcc cagtaaggcc actgtacacc
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cctcctgacc cagaccataa ccagcctccg attgtgcttt tgaccctggt tccttcaggc
360
accagg
366

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<210> 3368  
 <211> 104  
 <212> PRT

<213> Homo sapiens

<400> 3368

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Met Thr Glu Asn Tyr Ala Thr Glu Val Leu Glu Ala Gly Ile Val Ala
 1             5             10             15
Ser Gln Glu His Gly Gly Cys Leu Pro His Phe Arg Pro Leu Ser Val
      20             25             30
Lys Asp Val Arg Gly Lys Gly Cys Trp Glu Ser Ile Leu Arg Thr Glu
      35             40             45
Gly Gly Val Pro Pro Ala Leu Pro Ser Tyr Trp Trp Arg Lys Glu Val
      50             55             60
Leu Gly Ala Pro Gln Leu Arg Ala Pro Arg Arg Pro Val Arg Pro Leu
65             70             75             80
Tyr Thr Pro Pro Asp Pro Asp His Asn Gln Pro Pro Ile Val Leu Leu
      85             90             95
Thr Leu Phe Pro Ser Gly Thr Arg
      100

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<210> 3369

<211> 1405

<212> DNA

<213> Homo sapiens

<400> 3369

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cttgttccag ggaaaagctt tcagcagcaa agggaagcca tgaaacaaac catagaagaa
60
gataaggagc agaaaaatca ggaaaactgt ggtgcaaaga agaataaaaa gaagaggaaa
120
aaggttttat ataatgccaa taaaaatgat gattatgaca acgaggagat cttaacctat
180
gaggaaatgt cactttatca tcagccagca aataggaaga gacctatcat cttgattggt
240
ccacagaact gtggccagaa tgaattgcgt cagaggctca tgaacaaaga aaaggaccgc
300
tttgcctctg cagttcctca tacaaccgg agtaggcgag accaagaagt agccggtaga
360
gattaccact ttgtttcgcg gcaagcattc gaggcagaca tagcagctgg aaagtccatt
420
gagcatggtg aatttgagaa gaatttgtat ggaactagca tagattctgt acggcaagtg
480
atcaactctg gcaaaaatag tcttttaagt cttcgtacac agtcattgaa gactctccgg
540
aattcagatt tgaaaccata tattatcttc attgcacccc cttcacaaga aagacttcgg
600
gcattattgg ccaaagaagg caagaatcca aagcctgaag agttgagaga aatcattgag
660
aagacaagag agatggagca gaacaatggc cactactttg atacggcaat tgtgaattcc
720
gatcttgata aagcctatca ggaattgctt aggttaatta acaaacttga tactgaacct
780
cagtgggtac catccacttg gctgaggtga aagaaacatc cattctgtgg catgttggaac
840
ttgatctggc aaaaactgcc aataggagga ctgcccagca ctgcagcaag attgaggata
900

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agatggaagg cagcagtata agctgtagat ctgttcttag atctcttgaa ttagtgagac  
 960  
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 1020  
 gttcttgctt cattttggga ttctaaatgg aagctttcaa cagagcattc cattttgtcc  
 1080  
 tgttaaaacc ttttgttttc acctaaaccc tttctgctta gttgtatctc tgtgaaaaac  
 1140  
 ttgtatacac aagcgtccat gtctcacaca aatattgatg tgattattct taagtgttaa  
 1200  
 atcattaaca cttaaagac ttcattggga atattgagca gagggactgt gcttctatgc  
 1260  
 actgggcaag gcagtatttg cttaggaaac taatttagtc atcagagata ctttcctaaa  
 1320  
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 1380  
 attcatttat atgtcttttg attct  
 1405

&lt;210&gt; 3370

&lt;211&gt; 269

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3370

Leu Val Pro Gly Lys Ser Phe Gln Gln Gln Arg Glu Ala Met Lys Gln  
 1 5 10 15  
 Thr Ile Glu Glu Asp Lys Glu Gln Lys Asn Gln Glu Asn Cys Gly Ala  
 20 25 30  
 Lys Lys Asn Lys Lys Lys Arg Lys Lys Val Leu Tyr Asn Ala Asn Lys  
 35 40 45  
 Asn Asp Asp Tyr Asp Asn Glu Glu Ile Leu Thr Tyr Glu Glu Met Ser  
 50 55 60  
 Leu Tyr His Gln Pro Ala Asn Arg Lys Arg Pro Ile Ile Leu Ile Gly  
 65 70 75 80  
 Pro Gln Asn Cys Gly Gln Asn Glu Leu Arg Gln Arg Leu Met Asn Lys  
 85 90 95  
 Glu Lys Asp Arg Phe Ala Ser Ala Val Pro His Thr Thr Arg Ser Arg  
 100 105 110  
 Arg Asp Gln Glu Val Ala Gly Arg Asp Tyr His Phe Val Ser Arg Gln  
 115 120 125  
 Ala Phe Glu Ala Asp Ile Ala Ala Gly Lys Phe Ile Glu His Gly Glu  
 130 135 140  
 Phe Glu Lys Asn Leu Tyr Gly Thr Ser Ile Asp Ser Val Arg Gln Val  
 145 150 155 160  
 Ile Asn Ser Gly Lys Ile Cys Leu Leu Ser Leu Arg Thr Gln Ser Leu  
 165 170 175  
 Lys Thr Leu Arg Asn Ser Asp Leu Lys Pro Tyr Ile Ile Phe Ile Ala  
 180 185 190  
 Pro Pro Ser Gln Glu Arg Leu Arg Ala Leu Leu Ala Lys Glu Gly Lys  
 195 200 205  
 Asn Pro Lys Pro Glu Glu Leu Arg Glu Ile Ile Glu Lys Thr Arg Glu  
 210 215 220  
 Met Glu Gln Asn Asn Gly His Tyr Phe Asp Thr Ala Ile Val Asn Ser

<400> 3372

Gly	Thr	Ala	Val	Arg	Val	Val	Leu	Val	Pro	Ala	Phe	Ala	Leu	Ala	Lys
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Glu	Ala	Pro	Arg	Glu	His	Leu	Asp	His	Gln	Ala	Ala	His	Gln	Pro	Phe
			20					25					30		
Pro	Arg	Pro	Arg	Phe	Arg	Gln	Glu	Thr	Gly	His	Pro	Ser	Leu	Gln	Arg
		35					40					45			
Asp	Phe	Pro	Arg	Ser	Phe	Leu	Leu	Asp	Leu	Pro	Asn	Phe	Pro	Asp	Leu

50                      55                      60  
 Ser Lys Ala Asp Ile Asn Gly Gln Asn Pro Asn Ile Gln Val Thr Ile  
 65                      70                      75                      80  
 Glu Val Val Asp Gly Pro Asp Ser Glu Ala Asp Lys Asp Gln His Pro  
                     85                      90                      95  
 Glu Asn Lys Pro Ser Trp Ser Val Pro Ser Pro Asp Trp Arg Ala Trp  
                     100                      105                      110  
 Trp Gln Arg Ser Leu Ser Leu Ala Arg Ala Asn Ser Gly Asp Gln Asp  
                     115                      120                      125  
 Tyr Lys Tyr Asp Ser Thr Ser Asp Asp Ser Asn Phe Leu Asn Pro Pro  
                     130                      135                      140  
 Arg Gly Trp Asp His Thr Ala Pro Gly His Arg Thr Phe Glu Thr Lys  
 145                      150                      155                      160  
 Asp Gln Pro Glu Tyr Asp Ser Thr Asp Gly Glu Gly Asp Trp Ser Leu  
                     165                      170                      175  
 Trp Ser Val Cys Ser Val Thr Cys Gly Asn Gly Asn Gln Lys Arg Thr  
                     180                      185                      190  
 Arg Ser Cys Gly Tyr Ala  
                     195

&lt;210&gt; 3373

&lt;211&gt; 726

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3373

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 60  
 gggtcctcga acagaagcca gggctctgtgc ggcacccacc agctgctggg ccatggcgga  
 120  
 gtgttctggt gcgggcccagc gcctgaccgg tgcgggcccgc ctcaggagag gagagcttgc  
 180  
 tcagtgcgtc acgtagtcag ggctcaggct ggggcccggc tccagagcct ggtcacattc  
 240  
 ccaagcttca ttctcttcac ctgtgaattg caggcttccc tgggtgtgcc tgccatgag  
 300  
 ggaagacaca cctgaagcac tgggtccctc catggccttg ggccgcagga accgtgggag  
 360  
 cagcagcttg ggaaggacat gtcggaggcc ggcgcctgtg cgggcagaag ctgtgtcctc  
 420  
 cagcccttcc accaccagca tgttctcatt tccaggtttc tctgtttaaa aaacaaaagt  
 480  
 agcgcacggt tggctcttcac gacgtacacc cagaagcacc cgtccatcga ggacgggcct  
 540  
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 600  
 gtcttgggat cctgcagggg gagggggctg tgaatgtgcg ggttgtgtgt agacgtgggt  
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 720  
 atgcat  
 726

&lt;210&gt; 3374



<211> 84  
 <212> PRT  
 <213> Homo sapiens

<400> 3374  
 Met Ser Glu Ala Gly Ala Cys Ala Gly Arg Ser Cys Val Leu Gln Pro  
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 Phe His His Gln His Val Leu Ile Ser Arg Phe Leu Cys Leu Lys Asn  
 20 25 30  
 Lys Ser Ser Ala Ser Val Val Phe Thr Thr Tyr Thr Gln Lys His Pro  
 35 40 45  
 Ser Ile Glu Asp Gly Pro Pro Phe Val Glu Pro Leu Leu Asn Phe Ile  
 50 55 60  
 Trp Phe Leu Leu Leu Ala Val Asp Gly Cys Val Leu Gly Ser Cys Arg  
 65 70 75 80  
 Gly Arg Gly Leu

<210> 3375  
 <211> 393  
 <212> DNA  
 <213> Homo sapiens

<400> 3375  
 acgcgtgcat acgtgatctc atgtttgcac acatgtgtcc atgcagatgc atgctctcac  
 60  
 gcacatgtgc ccacacactc agcactcaca ccccgctcctg caggctcagc cccactcctg  
 120  
 agccacctgc ctgggctttg ggggcccagc cggcatgggg agccccaggc tccagctggc  
 180  
 ctgcttggc tctgaaatct aggccaggat gcagagcccg cagtgcggcc agtggagccc  
 240  
 ctggtactgt gcgcagcccc cacctggcag ccccttttcc tgtcaaagcc cctcccagcg  
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 360  
 cttgccagc atccccggcc tgcattctac cag  
 393

<210> 3376  
 <211> 103  
 <212> PRT  
 <213> Homo sapiens

<400> 3376  
 Met Phe Ala His Met Cys Pro Cys Arg Cys Met Leu Ser Arg Thr Cys  
 1 5 10 15  
 Ala His Thr Leu Ser Thr His Thr Pro Ser Cys Arg Leu Ser Pro Thr  
 20 25 30  
 Pro Glu Pro Pro Ala Trp Ala Leu Gly Ala Gln Pro Ala Trp Gly Ala  
 35 40 45  
 Pro Gly Ser Ser Trp Pro Arg Leu Ala Leu Lys Ser Arg Pro Gly Cys  
 50 55 60  
 Arg Ala Arg Ser Ala Ala Ser Gly Ala Pro Gly Thr Val Arg Ser Pro

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120  
tgacaggaaa tttcggggaa ctaaaaaggc tggaagaaca tgaagatgga gcagtcataa  
180  
accaccact caaggaccat ctcttcacg accatccaca cgagactcag attgtctgaa  
240  
ttgagctatc gcaacttaat gctaaaagct ccttaaagct acagatttat gacatagttc  
300  
cttccaaaat attacatcat aaatcattga gaagattaaa aaaaaacact tgaagaaatt  
360  
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420  
aaggagcaca gacttactga agctttactg gacagaatcc tgggaaatcg atatcattat  
480  
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540  
cacaaattac agcagtctga atcgagctca gctaaccttt gaatatctgc acacaaattc  
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720  
atgtgtcact ggatatcttg agctctgtat tgaagaactg agatcagtga aatacttgtt  
780  
gctaaccag aagaatctga tttttgttta ttggatcaaa attttctaaa tgcaaaacttt  
840  
agttatttga agtcaatatg ttgagttggt tcattcaagt gtttatagga atccaacaaa  
900  
tactgtctta ttggatcgcc aaatgttgga ctattttagt atcaaccgtt tcccctctgt  
960  
agtgacaacg tcctaaacag ttaggtttat aacaagtgtt tactttctaa caagaaaaca  
1020  
gaagacattt aaatgacaac tttcaagaag aaaattttta ttttttcaga agttggcatt  
1080  
atcttctctg cagattgctc acatccaata ttatttgtat atgctaaaca ggaaacggca  
1140  
acttgtttat atctctatct agatagtctt tccccaaaat ttccacagaa acatacagtg  
1200  
ttcatgggtc ttgagttcat gaaggagtaa tctaactcact ccaacatggt ctggaatggt  
1260

tcaggtttaa tccatatgcc cactctcttg gaggtgtcc agtagcgta aaactttagt  
1320  
gttttaatac attcacctgt tacttttgag atgaagttca cctttcttgg atcacatgca  
1380  
aaggatgttt aggtctgtga agaaaagaat ttctaggccg ggtgctgtgg ctacgcctg  
1440  
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1560  
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1680  
actcagattg ggcagtacgg gaatgggtta aaatcgggct caatgcgcat tgggaaggat  
1740  
tttatectgt tcaccaagaa ggaagacacc atgacctgcc tcttctgtc tcgcacgttt  
1800  
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1860  
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1980  
agcgaacat tggatgatc cttcaatctc aaactcatgg ataattggaga gccagaacta  
2040  
gacataatct caaatccaag agatatccag atggcagaga cgtccccaga gggcacgaag  
2100  
ccagagcggc gctcgttccg tgccatgcc gctgtgctct atattgatcc ccgatgagg  
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2220  
aggatgtaca agtacacgtc aagccgttcc aagaccgtg cggagcagga ggtgaggata  
2280  
gcagtgcacg tagcaaggat tgctgaagag aaggcgcggg aggcagagag caaagctcgg  
2340  
acattagaag tacgcctagg tggagacctc acgcgggact ccagggtgat gttgcgacag  
2400  
gtccagaaca gagccatcac tctgcgcaga gaagccgatg tcaagaagag gatcaaggag  
2460  
gccaaagcagc gagcacttaa agaacctaa gaactgaatt ttgttttttg tgtcaacatt  
2520  
gaacaccggg atctggatgg catgttcac tacaactgta gccgactgat caaatgtat  
2580  
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<210> 3378

<211> 970

<212> PRT

<213> Homo sapiens

<400> 3378

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Ala	Ser	Val	Ile	Gln	Phe	Gly	Lys	Ser	Ala	Lys	Arg	Thr	Pro	Glu	Ser
			20				25					30			
Thr	Gln	Ile	Gly	Gln	Tyr	Gly	Asn	Gly	Leu	Lys	Ser	Gly	Ser	Met	Arg
			35				40					45			
Ile	Gly	Lys	Asp	Phe	Ile	Leu	Phe	Thr	Lys	Lys	Glu	Asp	Thr	Met	Thr
			50				55				60				
Cys	Leu	Phe	Leu	Ser	Arg	Thr	Phe	His	Glu	Glu	Glu	Gly	Ile	Asp	Glu
65					70					75				80	
Val	Ile	Val	Pro	Leu	Pro	Thr	Trp	Asn	Ala	Arg	Thr	Arg	Glu	Pro	Val
			85					90					95		
Thr	Asp	Asn	Val	Glu	Lys	Phe	Ala	Ile	Glu	Thr	Glu	Leu	Ile	Tyr	Lys
			100				105					110			
Tyr	Ser	Pro	Phe	Arg	Thr	Glu	Glu	Glu	Val	Met	Thr	Gln	Phe	Met	Lys
			115				120				125				
Ile	Pro	Gly	Asp	Ser	Gly	Thr	Leu	Val	Ile	Ile	Phe	Asn	Leu	Lys	Leu
			130			135					140				
Met	Asp	Asn	Gly	Glu	Pro	Glu	Leu	Asp	Ile	Ile	Ser	Asn	Pro	Arg	Asp
145					150					155				160	
Ile	Gln	Met	Ala	Glu	Thr	Ser	Pro	Glu	Gly	Thr	Lys	Pro	Glu	Arg	Arg

165 170 175  
 Ser Phe Arg Ala Tyr Ala Ala Val Leu Tyr Ile Asp Pro Arg Met Arg  
 180 185 190  
 Ile Phe Ile His Gly His Lys Val Gln Thr Lys Arg Leu Ser Cys Cys  
 195 200 205  
 Leu Tyr Lys Pro Arg Met Tyr Lys Tyr Thr Ser Ser Arg Phe Lys Thr  
 210 215 220  
 Arg Ala Glu Gln Glu Val Arg Ile Ala Val His Val Ala Arg Ile Ala  
 225 230 235 240  
 Glu Glu Lys Ala Arg Glu Ala Glu Ser Lys Ala Arg Thr Leu Glu Val  
 245 250 255  
 Arg Leu Gly Gly Asp Leu Thr Arg Asp Ser Arg Val Met Leu Arg Gln  
 260 265 270  
 Val Gln Asn Arg Ala Ile Thr Leu Arg Arg Glu Ala Asp Val Lys Lys  
 275 280 285  
 Arg Ile Lys Glu Ala Lys Gln Arg Ala Leu Lys Glu Pro Lys Glu Leu  
 290 295 300  
 Asn Phe Val Phe Gly Val Asn Ile Glu His Arg Asp Leu Asp Gly Met  
 305 310 315 320  
 Phe Ile Tyr Asn Cys Ser Arg Leu Ile Lys Met Tyr Glu Lys Val Gly  
 325 330 335  
 Pro Gln Leu Glu Gly Gly Met Ala Cys Gly Gly Val Val Gly Val Val  
 340 345 350  
 Asp Val Pro Tyr Leu Val Leu Glu Pro Thr His Asn Lys Gln Asp Phe  
 355 360 365  
 Ala Asp Ala Lys Glu Tyr Arg His Leu Leu Arg Ala Met Gly Glu His  
 370 375 380  
 Leu Ala Gln Tyr Trp Lys Asp Ile Ala Ile Ala Gln Arg Gly Ile Ile  
 385 390 395 400  
 Lys Phe Trp Asp Glu Phe Gly Tyr Leu Ser Ala Asn Trp Asn Gln Pro  
 405 410 415  
 Pro Ser Ser Glu Leu Arg Tyr Lys Arg Arg Arg Ala Met Glu Ile Pro  
 420 425 430  
 Thr Thr Ile Gln Cys Asp Leu Cys Leu Lys Trp Arg Thr Leu Pro Phe  
 435 440 445  
 Gln Leu Ser Ser Val Glu Lys Asp Tyr Pro Asp Thr Trp Val Cys Ser  
 450 455 460  
 Met Asn Pro Asp Pro Glu Gln Asp Arg Cys Glu Ala Ser Glu Gln Lys  
 465 470 475 480  
 Gln Lys Val Pro Leu Gly Thr Phe Arg Lys Asp Met Lys Thr Gln Glu  
 485 490 495  
 Glu Lys Gln Lys Gln Leu Thr Glu Lys Ile Arg Gln Gln Gln Glu Lys  
 500 505 510  
 Leu Glu Ala Leu Gln Lys Thr Thr Pro Ile Arg Ser Gln Ala Asp Leu  
 515 520 525  
 Lys Lys Leu Pro Leu Glu Val Thr Thr Arg Pro Ser Thr Glu Glu Pro  
 530 535 540  
 Val Arg Arg Pro Gln Arg Pro Arg Ser Pro Pro Leu Pro Ala Val Ile  
 545 550 555 560  
 Arg Asn Ala Pro Ser Arg Pro Pro Ser Leu Pro Thr Pro Arg Pro Ala  
 565 570 575  
 Ser Gln Pro Arg Lys Ala Pro Val Ile Ser Ser Thr Pro Lys Leu Pro  
 580 585 590  
 Ala Leu Ala Ala Arg Glu Glu Ala Ser Thr Ser Arg Leu Leu Gln Pro

595	600	605
Pro Glu Ala Pro Arg Lys	Pro Ala Asn Thr Leu Val Lys Thr Ala Ser	
610	615	620
Arg Pro Ala Pro Leu Val Gln Gln Leu Ser Pro Ser Leu Leu Pro Asn		
625	630	635
Ser Lys Ser Pro Arg Glu Val Pro Ser Pro Lys Val Ile Lys Thr Pro		
645	650	655
Val Val Lys Lys Thr Glu Ser Pro Ile Lys Leu Ser Pro Ala Thr Pro		
660	665	670
Ser Arg Lys Arg Ser Val Ala Val Ser Asp Glu Glu Glu Val Glu Glu		
675	680	685
Glu Ala Glu Arg Arg Lys Glu Arg Cys Lys Arg Gly Arg Phe Val Val		
690	695	700
Lys Glu Glu Lys Lys Asp Ser Asn Glu Leu Ser Asp Ser Ala Gly Gly		
705	710	715
Glu Asp Ser Ala Asp Leu Lys Arg Ala Gln Lys Asp Lys Gly Leu His		
725	730	735
Val Glu Val Arg Val Asn Arg Glu Trp Tyr Thr Gly Arg Val Thr Ala		
740	745	750
Val Glu Val Gly Lys His Val Val Arg Trp Lys Val Lys Phe Asp Tyr		
755	760	765
Val Pro Thr Asp Thr Thr Pro Arg Asp Arg Trp Val Glu Lys Gly Ser		
770	775	780
Glu Asp Val Arg Leu Met Lys Pro Pro Ser Pro Glu His Gln Ser Leu		
785	790	795
Asp Thr Gln Gln Glu Gly Gly Glu Glu Glu Val Gly Pro Val Ala Gln		
805	810	815
Gln Ala Ile Ala Val Ala Glu Pro Ser Thr Ser Glu Cys Leu Arg Ile		
820	825	830
Glu Pro Asp Thr Thr Ala Leu Ser Thr Asn His Glu Thr Ile Asp Leu		
835	840	845
Leu Val Gln Ile Leu Arg Asn Cys Leu Arg Tyr Phe Leu Pro Pro Ser		
850	855	860
Phe Pro Ile Ser Lys Lys Gln Leu Ser Ala Met Asn Ser Asp Glu Leu		
865	870	875
Ile Ser Phe Pro Leu Lys Glu Tyr Phe Lys Gln Tyr Glu Val Gly Leu		
885	890	895
Gln Asn Leu Cys Asn Ser Tyr Gln Ser Arg Ala Asp Ser Arg Ala Lys		
900	905	910
Ala Ser Glu Glu Ser Leu Arg Thr Ser Glu Arg Lys Leu Arg Glu Thr		
915	920	925
Glu Glu Lys Leu Gln Lys Leu Arg Thr Asn Ile Val Ala Leu Leu Gln		
930	935	940
Lys Val Gln Glu Asp Ile Asp Ile Asn Thr Asp Asp Glu Leu Asp Ala		
945	950	955
Tyr Ile Glu Asp Leu Ile Thr Lys Gly Asp		
965	970	

&lt;210&gt; 3379

&lt;211&gt; 898

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3379

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 ccccaaccct gggagctccg agtgtcagaa gatgcgttat tgggctcaga gattgcacag  
 180  
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 240  
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 300  
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 420  
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 660  
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 780  
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 898

&lt;210&gt; 3380

&lt;211&gt; 299

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3380

Xaa	Ile	Trp	Ala	Glu	Thr	Arg	Leu	Val	Leu	Met	Ala	Thr	Asp	Arg	Gly
1				5					10					15	
Ser	Pro	Ala	Leu	Val	Gly	Ser	Ala	Thr	Leu	Thr	Val	Met	Val	Ile	Asp
			20					25					30		
Thr	Asn	Gly	Asn	Arg	Pro	Thr	Ile	Pro	Gln	Pro	Trp	Glu	Leu	Arg	Val
		35				40					45				
Ser	Glu	Asp	Ala	Leu	Leu	Gly	Ser	Glu	Ile	Ala	Gln	Val	Thr	Gly	Asn
	50				55					60					
Asp	Val	Asp	Ser	Gly	Pro	Val	Leu	Trp	Tyr	Val	Leu	Ser	Pro	Ser	Gly
65				70					75					80	
Pro	Gln	Asp	Pro	Phe	Ser	Val	Gly	Arg	Tyr	Gly	Gly	Arg	Val	Ser	Leu
			85					90					95		
Thr	Gly	Pro	Leu	Asp	Phe	Glu	Gln	Cys	Asp	Arg	Tyr	Gln	Leu	Gln	Leu
		100					105					110			
Leu	Ala	His	Asp	Gly	Pro	His	Glu	Gly	Arg	Ala	Xaa	Leu	Thr	Val	Leu
		115				120						125			
Val	Glu	Asp	Val	Asn	Asp	Asn	Ala	Pro	Ala	Phe	Ser	Gln	Ser	Leu	Tyr



130 135 140  
 Gln Val Met Leu Leu Glu His Thr Pro Pro Gly Ser Ala Ile Leu Ser  
 145 150 155 160  
 Val Ser Ala Thr Asp Arg Asp Ser Gly Ala Asn Gly His Ile Ser Tyr  
 165 170 175  
 His Leu Ala Ser Pro Ala Asp Gly Phe Ser Val Asp Pro Asn Asn Gly  
 180 185 190  
 Thr Leu Phe Thr Ile Val Gly Thr Leu Ala Leu Gly His Asp Gly Ser  
 195 200 205  
 Gly Ala Val Asp Val Val Leu Glu Ala Arg Asp His Gly Ala Pro Val  
 210 215 220  
 Arg Ala Ala Arg Ala Thr Val Asn Val Gln Leu Arg Asp Gln Asn Asp  
 225 230 235 240  
 His Ala Pro Ser Phe Thr Leu Phe His Tyr Arg Val Ala Val Thr Glu  
 245 250 255  
 Asp Leu Pro Pro Gly Ser Thr Leu Leu Thr Leu Glu Ala Thr Asp Ala  
 260 265 270  
 Asp Gly Ser Arg Ser His Ala Ala Val Asp Tyr Ser Ile Ile Ser Gly  
 275 280 285  
 Asn Trp Gly Arg Val Phe Gln Leu Glu Pro Arg  
 290 295

&lt;210&gt; 3381

&lt;211&gt; 1379

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3381

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 gagccgctgg aagggacaga acagacacta gatgaggagg aggagcagga ggaatccgaa  
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 1320  
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 1379

&lt;210&gt; 3382

&lt;211&gt; 279

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3382

Xaa Pro Leu Val Ser Val Asn Met Glu Ala Glu Glu Ser Glu Lys Ala  
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 Ala Thr Glu Gln Glu Pro Leu Glu Gly Thr Glu Gln Thr Leu Asp Ala  
 20 25 30  
 Glu Glu Glu Gln Glu Glu Ser Glu Glu Ala Ala Cys Gly Ser Lys Lys  
 35 40 45  
 Arg Val Val Pro Gly Ile Val Tyr Leu Gly His Ile Pro Pro Arg Phe  
 50 55 60  
 Arg Pro Leu His Val Arg Asn Leu Leu Ser Ala Tyr Gly Glu Val Gly  
 65 70 75 80  
 Arg Val Phe Phe Gln Ala Glu Asp Arg Phe Val Arg Arg Lys Lys Lys  
 85 90 95  
 Ala Ala Ala Ala Ala Gly Gly Lys Lys Arg Ser Tyr Thr Lys Asp Tyr  
 100 105 110  
 Thr Glu Gly Trp Val Glu Phe Arg Asp Lys Arg Ile Ala Lys Arg Val  
 115 120 125  
 Ala Ala Ser Leu His Asn Thr Pro Met Gly Ala Arg Arg Arg Ser Pro  
 130 135 140  
 Phe Arg Tyr Asp Leu Trp Asn Leu Lys Tyr Leu His Arg Phe Thr Trp  
 145 150 155 160  
 Ser His Leu Ser Glu His Leu Ala Phe Glu Arg Gln Val Arg Arg Gln  
 165 170 175  
 Arg Leu Arg Ala Glu Val Ala Gln Ala Lys Arg Glu Thr Asp Phe Tyr  
 180 185 190  
 Leu Gln Ser Val Glu Arg Gly Gln Arg Phe Leu Ala Ala Asp Gly Asp  
 195 200 205  
 Pro Ala Arg Pro Asp Gly Ser Trp Thr Phe Ala Gln Arg Pro Thr Glu

210		215		220
Gln Glu Leu Arg Ala Arg Lys Ala Ala Arg Pro Gly Gly Arg Glu Arg				
225		230		235
Ala Arg Leu Ala Thr Ala Gln Asp Lys Ala Arg Ser Asn Lys Gly Leu				240
	245		250	255
Leu Ala Arg Ile Phe Gly Ala Pro Pro Pro Ser Glu Ser Met Glu Gly				
	260	265		270
Pro Ser Leu Val Arg Asp Ser				
275				

&lt;210&gt; 3383

&lt;211&gt; 309

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3383

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gtgttgcttg cacacaaatt ttgtagctgg agtgagtatt gttgttattt gtgttatagg
120
aaatgctcac ttcttaacct cttttgtcct ggagcataga attactgcaa atgctcaccc
180
ctgggagctg tcctgcccc gatctccac acaaacactc cagcatgaaa gagcgagact
240
caatctcaaa aaaaaaaagt ttcgggcacc tgaacaggaa ctggtttcca tcatcaactc
300
agaaagccc
309

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&lt;210&gt; 3384

&lt;211&gt; 94

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3384

Met Leu Ala His His Gly Ser Arg Glu Lys Cys Gln Cys Cys Leu His				
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Thr Asn Phe Val Ala Gly Val Ser Ile Val Val Ile Cys Val Ile Gly				
	20		25	30
Asn Ala His Phe Leu Thr Ser Phe Val Leu Glu His Arg Ile Thr Ala				
	35		40	45
Asn Ala His Pro Trp Glu Leu Ser Cys Pro Arg Ser Pro Thr Gln Thr				
	50		55	60
Leu Gln His Glu Arg Ala Arg Leu Asn Leu Lys Lys Lys Lys Phe Arg				
65	70		75	80
Ala Pro Glu Gln Glu Leu Val Ser Ile Ile Asn Ser Glu Ser				
	85		90	

&lt;210&gt; 3385

&lt;211&gt; 720

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3385

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 240  
 cctcttgcca ggttctttgt gaacttcccc tcggccaagc agtacttcag ccagttcaag  
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 360  
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 420  
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 480  
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 540  
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 600  
 gcctacaagg aagtgggctg ggtgcagcag gtccccaacg ccaccacccc accggccaca  
 660  
 ctgccctctt cggggccgta ggaccctcc ctccaccccc ctccctggca gcacctcgag  
 720

&lt;210&gt; 3386

&lt;211&gt; 188

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3386

Met Val Val Lys Thr Val Thr Val Arg Gly Trp Gly Ala Leu Arg Ser  
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 Thr Ser Ser Ala Pro His Tyr Pro Gly Ser Phe Arg Val Gly Pro Arg  
 20 25 30  
 Gln Pro Pro Ala Ser Ala Thr Thr Pro Val Pro Leu Ala Arg Phe Phe  
 35 40 45  
 Val Asn Phe Pro Ser Ala Lys Gln Tyr Phe Ser Gln Phe Lys His Met  
 50 55 60  
 Glu Asp Pro Leu Glu Met Glu Arg Ser Pro Gln Leu Arg Lys His Ala  
 65 70 75 80  
 Cys Arg Val Met Gly Ala Leu Asn Thr Val Val Glu Asn Leu His Asp  
 85 90 95  
 Pro Asp Lys Val Ser Ser Val Leu Ala Leu Val Gly Lys Ala His Ala  
 100 105 110  
 Leu Lys His Lys Val Glu Pro Val Tyr Phe Lys Ile Leu Ser Gly Val  
 115 120 125  
 Ile Leu Glu Val Val Ala Glu Phe Ala Ser Asp Phe Pro Pro Glu  
 130 135 140  
 Thr Gln Arg Ala Trp Ala Lys Leu Arg Gly Leu Ile Tyr Ser His Val  
 145 150 155 160  
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180

185

&lt;210&gt; 3387

&lt;211&gt; 3299

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3387

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<210> 3388

<211> 153

<212> PRT

<213> Homo sapiens

<400> 3388

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 Leu Arg Val Val Leu Ala Leu Arg Gly Arg Glu Glu Val Ser Asp Ala  
 35 40 45  
 Gly Cys Gly Gly Pro Arg Ile Thr Ile Asn Lys Asp Thr Lys Val Pro  
 50 55 60  
 Asn Ala Cys Leu Phe Thr Ile Asn Lys Glu Asp His Thr Leu Gly Asn  
 65 70 75 80  
 Ile Ile Lys Ser Gln Leu Leu Lys Asp Pro Gln Val Leu Phe Ala Gly  
 85 90 95  
 Tyr Lys Val Pro His Pro Leu Glu His Lys Ile Ile Ile Arg Val Gln  
 100 105 110  
 Thr Thr Pro Asp Tyr Ser Pro Gln Glu Ala Phe Thr Asn Ala Ile Thr  
 115 120 125  
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<210> 3389

<211> 308

<212> DNA

<213> Homo sapiens

<400> 3389

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<400> 3391
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240
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300
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tggggaaacc atgaattcta taacttcagt agagagtatt taacacactc taaacttaac
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720

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<210> 3392

<211> 355

<212> PRT

<213> Homo sapiens

<400> 3392

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Asn	Phe	Gln	Gly	Thr	Arg	Arg	Tyr	Tyr	Arg	His	Ser	Leu	Leu	His	
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Leu	Gln	Gly	Ala	Ile	Glu	Asp	Trp	Asn	Asn	Glu	Ser	Ser	Met	Pro	Cys
65				70				75					80		
Cys	Val	Leu	Gln	Leu	Gly	Asp	Ile	Ile	Asp	Gly	Tyr	Asn	Ala	Gln	Tyr
			85					90					95		
Asn	Ala	Ser	Lys	Lys	Ser	Leu	Glu	Leu	Val	Met	Asp	Met	Phe	Lys	Arg
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Leu	Lys	Val	Pro	Val	His	His	Thr	Trp	Gly	Asn	His	Glu	Phe	Tyr	Asn
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Phe	Ser	Arg	Glu	Tyr	Leu	Thr	His	Ser	Lys	Leu	Asn	Thr	Lys	Phe	Leu
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Tyr	Ala	Tyr	His	Phe	Val	Pro	Phe	Pro	Lys	Phe	Arg	Phe	Ile	Leu	Leu
			165					170					175		
Asp	Ala	Tyr	Asp	Leu	Ser	Val	Leu	Gly	Val	Asp	Gln	Ser	Ser	Pro	Lys
	180						185					190			
Tyr	Glu	Gln	Cys	Met	Lys	Ile	Leu	Arg	Glu	His	Asn	Pro	Asn	Thr	Glu
	195						200					205			
Leu	Asn	Ser	Pro	Gln	Gly	Leu	Ser	Glu	Pro	Gln	Phe	Val	Gln	Phe	Asn

210                      215                      220  
 Gly Gly Phe Ser Gln Glu Gln Leu Asn Trp Leu Asn Glu Val Leu Thr  
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 Phe Ser Asp Thr Asn Gln Glu Lys Val Val Ile Val Ser His Leu Pro  
                     245                      250                      255  
 Ile Tyr Pro Asp Ala Ser Asp Asn Val Cys Leu Ala Trp Asn Tyr Arg  
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 Asp Ala Leu Ala Val Ile Trp Ser His Glu Cys Val Val Cys Phe Phe  
                     275                      280                      285  
 Ala Gly His Thr His Asp Gly Gly Tyr Ser Glu Asp Pro Phe Gly Val  
                     290                      295                      300  
 Tyr His Val Asn Leu Glu Gly Val Ile Glu Thr Ala Pro Asp Ser Gln  
 305                      310                      315                      320  
 Ala Phe Gly Thr Val His Val Tyr Pro Asp Lys Met Met Leu Lys Gly  
                     325                      330                      335  
 Arg Gly Arg Val Pro Asp Arg Ile Met Asn Tyr Lys Lys Glu Arg Ala  
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 Phe His Cys  
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<210> 3393  
 <211> 510  
 <212> DNA  
 <213> Homo sapiens

<400> 3393  
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<210> 3394  
 <211> 170  
 <212> PRT  
 <213> Homo sapiens

<400> 3394  
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Thr Gly Ser Ser Ser Leu Trp Asn Leu Met Gly Asn Xaa Met Val Met
65      70      75      80
Thr Gln Tyr Ile Arg Leu Thr Pro Asp Met Gln Ser Lys Gln Gly Ala
      85      90      95
Leu Trp Asn Arg Val Pro Cys Phe Leu Arg Asp Trp Glu Leu Gln Val
      100      105      110
His Phe Lys Ile His Gly Gln Gly Lys Lys Asn Leu His Gly Asp Gly
      115      120      125
Leu Ala Ile Trp Tyr Thr Lys Asp Arg Met Gln Pro Gly Pro Val Phe
      130      135      140
Gly Asn Met Asp Lys Phe Val Gly Leu Gly Val Phe Val Asp Thr Tyr
145      150      155      160
Pro Asn Glu Glu Lys Gln Pro Phe Thr Arg
      165      170

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&lt;210&gt; 3395

&lt;211&gt; 807

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3395

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807

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 <211> 205  
 <212> PRT  
 <213> Homo sapiens

<400> 3396  
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 35 40 45  
 Glu Tyr Gln Ser Thr Ser Ala Ser Ala Ser Ala Ser Pro Phe Gln Ser  
 50 55 60  
 Ala Trp Tyr Ser Glu Ser Glu Ile Thr Gln Gly Ala Arg Ser Arg Ser  
 65 70 75 80  
 Gln Asn Gln Gln Arg Asp His Asp Ser Lys Arg Pro Lys Leu Ser Cys  
 85 90 95  
 Thr Asn Cys Thr Thr Ser Ala Gly Arg Asn Val Gly Asn Gly Leu Asn  
 100 105 110  
 Thr Leu Ser Asp Ser Ser Trp Arg His Ser Gln Val Pro Arg Ser Ser  
 115 120 125  
 Ser Met Val Leu Gly Ser Phe Gly Thr Asp Leu Met Arg Glu Arg Arg  
 130 135 140  
 Asp Leu Glu Arg Arg Thr Asp Ser Ser Ile Ser Asn Leu Met Asp Tyr  
 145 150 155 160  
 Ser His Arg Ser Gly Asp Phe Thr Thr Ser Ser Tyr Val Gln Asp Arg  
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 Val Pro Ser Tyr Ser Gln Gly Ala Arg Pro Lys Glu Asn Ser Met Ser  
 180 185 190  
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<210> 3397  
 <211> 492  
 <212> DNA  
 <213> Homo sapiens

<400> 3397  
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<210> 3398  
 <211> 163  
 <212> PRT  
 <213> Homo sapiens

<400> 3398  
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 35 40 45  
 Ala Ser Ala Ile Pro Ser Trp Leu Leu Asn Asp Pro Gly Val Glu Xaa  
 50 55 60  
 Glu Val Met Gly Asp Ala Val Leu Glu Ala Ser His Asn Val Gln Gly  
 65 70 75 80  
 Cys Gly Cys Ser Trp Val Ser His Ser Gly Arg Gly Val Gly Pro Glu  
 85 90 95  
 Ala Glu Gly Ala Gly Ser Pro Gln Ser Leu Gly His Gly Ser Gly Gly  
 100 105 110  
 Trp Ala Ala Arg Arg Cys His Cys Leu Ser Val Ala Gly Val Ala Ala  
 115 120 125  
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<210> 3399  
 <211> 5784  
 <212> DNA  
 <213> Homo sapiens

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<210> 3400

<211> 1069

<212> PRT

<213> Homo sapiens

<400> 3400

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			20					25					30		
Cys	Asp	Val	Leu	Leu	Ile	Val	Gly	Asp	Gln	Lys	Phe	Arg	Ala	His	Lys
			35				40					45			
Asn	Val	Leu	Ala	Ala	Ser	Ser	Glu	Tyr	Phe	Gln	Ser	Leu	Phe	Thr	Asn
			50			55					60				
Lys	Glu	Asn	Glu	Ser	Gln	Thr	Val	Phe	Gln	Leu	Asp	Phe	Cys	Glu	Pro
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Asp	Ala	Phe	Asp	Asn	Val	Leu	Asn	Tyr	Ile	Tyr	Ser	Ser	Ser	Leu	Phe
				85					90					95	
Val	Glu	Lys	Ser	Ser	Leu	Ala	Ala	Val	Gln	Glu	Leu	Gly	Tyr	Ser	Leu
				100				105					110		
Gly	Ile	Ser	Phe	Leu	Thr	Asn	Ile	Val	Ser	Lys	Thr	Pro	Gln	Ala	Pro
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Phe	Pro	Thr	Cys	Pro	Asn	Arg	Lys	Lys	Val	Phe	Val	Glu	Asp	Asp	Glu
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Ser	Arg	Pro	Ser	Pro	Ser	Ile	Ala	Val	Lys	Ala	Asn	Thr	Asn	Lys	Pro
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His	Val	Pro	Lys	Pro	Ile	Glu	Pro	Leu	His	Asn	Leu	Ser	Leu	Thr	Glu
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 Gln Lys Ser Ser Leu Lys Asp Cys Ser Glu Lys Thr Ala Leu Asp Asp  
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 Asn Phe Glu Glu Gly Ser Ser Pro Thr Leu Leu Asp Ala Asp Phe Pro  
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 Asp Ser Asp Leu Asn Lys Asp Glu Phe Gly Glu Leu Glu Gly Thr Arg  
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 Pro Asn Lys Lys Phe Lys Cys Lys His Cys Leu Lys Ile Phe Arg Ser  
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 Thr Ala Gly Leu His Arg His Val Asn Met Tyr His Asn Pro Glu Lys  
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 Pro Tyr Ala Cys Asp Ile Cys His Lys Arg Phe His Thr Asn Phe Lys  
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 Pro Ala Ser Ser Ser His Ala Val Leu Asp Glu Lys Phe Gln Arg Lys  
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 Leu Ile Asp Ile Val Arg Glu Arg Glu Ile Lys Lys Ala Leu Ile Ile  
 625                                   630                                   635                                   640  
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<210> 3401  
<211> 579

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3401

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&lt;210&gt; 3402

&lt;211&gt; 148

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3402

Met	Pro	His	Phe	Gln	Thr	Leu	Gln	Ala	Ile	Val	Ser	His	Phe	Gln	Lys
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			20					25					30		
Val	Tyr	Thr	Arg	Leu	Gly	Glu	Met	Asn	Asn	Ala	Val	Arg	Asn	Leu	Gln
		35				40						45			
Glu	Leu	Leu	Glu	Leu	Asp	Ser	Ser	Ser	Ser	Leu	Cys	Val	Leu	Val	Ser
	50				55						60				
Thr	Val	Gly	Lys	Leu	Cys	Arg	Leu	Ile	Asn	Glu	Asp	Val	Asn	Glu	Gln
65				70					75					80	
Val	Met	Gln	Val	Leu	Gly	Pro	Glu	Asp	Leu	Gln	Ser	Ile	Ile	Tyr	Lys
			85					90						95	
Leu	Glu	Glu	His	Glu	Glu	Phe	Phe	Pro	Ala	Phe	Gln	Ala	Phe	Thr	Asn
			100					105					110		
Asp	Leu	Leu	Glu	Ile	Leu	Glu	Ile	Asp	Asp	Ser	Gly	Cys	His	Cys	Thr
		115				120						125			
Cys	Ser	Lys	Glu	Ile	Lys	Ser	Thr	Phe	Ile	Leu	Lys	Thr	Asn	Gln	Ile
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Ile	Phe	Thr	Val												
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&lt;210&gt; 3403

&lt;211&gt; 1696

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3403

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<210> 3404

<211> 286

<212> PRT

<213> Homo sapiens

<400> 3404

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		20					25					30			
Ala	Ser	Glu	Cys	Thr	Glu	Leu	Pro	Lys	Ala	Glu	Lys	Trp	Arg	Arg	Gln
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Ile	Ile	Gly	Glu	Ile	Ser	Lys	Lys	Val	Ala	Gln	Ile	Gln	Asn	Ala	Gly
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Leu	Gly	Glu	Phe	Arg	Ile	Arg	Asp	Leu	Asn	Asp	Glu	Ile	Asn	Lys	Leu
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Leu	Arg	Glu	Lys	Gly	His	Trp	Glu	Val	Arg	Ile	Lys	Glu	Leu	Gly	Gly
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Pro	Asp	Tyr	Gly	Lys	Val	Gly	Pro	Lys	Met	Leu	Asp	His	Glu	Gly	Lys
		100					105					110			
Glu	Val	Pro	Gly	Asn	Arg	Gly	Tyr	Lys	Tyr	Phe	Gly	Ala	Ala	Lys	Asp
	115					120						125			
Leu	Pro	Gly	Val	Arg	Glu	Leu	Phe	Glu	Lys	Xaa	Thr	Ser	Ser	Ser	Ser
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Gln	Xaa	Lys	Thr	Arg	Ala	Glu	Leu	Met	Lys	Ala	Ile	Asp	Phe	Glu	Tyr
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Tyr	Gly	Tyr	Leu	Asp	Glu	Asp	Asp	Gly	Val	Ile	Val	Pro	Leu	Glu	Gln
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Glu	Arg	Glu	Ala	Arg	Leu	Ala	Arg	Gly	Glu	Lys	Glu	Glu	Glu	Glu	Glu
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Glu	Glu	Glu	Glu	Ile	Asn	Ile	Tyr	Ala	Val	Thr	Glu	Glu	Glu	Ser	Asp
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			245					250						255	
Val	Arg	Arg	Lys	Lys	Met	Glu	Leu	Leu	Gln	Lys	Tyr	Ala	Ser	Glu	Thr
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<210> 3405

<211> 402

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3405

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402

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&lt;210&gt; 3406

&lt;211&gt; 134

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3406

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20          25          30
Asp Arg Gly Leu Lys Thr Leu Glu Asn Leu Leu Ala Ser Ile Arg Lys
35          40          45
Gly Asn Ala Ile Asp Glu Ala Asp Ile Pro Pro Pro Val Ala Ile Gly
50          55          60
Lys Gly Pro Ala Ser Thr Pro Thr Tyr Ser Pro Ala Pro Thr Gln Pro
65          70          75          80
Ala Pro Arg Ile Ala Ser Ala Pro Glu Pro Arg Val Thr Leu Glu Gly
85          90          95
Pro Ser Ala Thr Ala Pro Ala Ser Ser Pro Gly Leu Ala Lys Pro Gln
100         105         110
Met Pro Pro Gly Pro Cys Ser Pro Pro Ser Gly Pro Val Ala Glu Pro
115         120         125
Pro Ala Arg Leu Gln Ala
130

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&lt;210&gt; 3407

&lt;211&gt; 535

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3407

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120

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<210> 3408

<211> 131

<212> PRT

<213> Homo sapiens

<400> 3408

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Ser	Ala	Gly	Thr	Phe	Pro	Gly	His	His	Ala	Phe	Ser	Ala	Val	Arg	Gln
			20					25					30		
Val	Ala	Ala	Pro	Thr	Gly	Pro	Gly	Gly	Thr	Phe	Pro	Gly	His	Pro	Thr
			35				40					45			
Ser	Ser	Val	Ala	Arg	Gln	Val	Ala	Ala	Pro	Thr	Gly	Pro	Ala	Gly	Thr
			50				55				60				
Phe	Pro	Gly	Xaa	Pro	Gly	Leu	Leu	Gly	Lys	Gln	Val	Ala	Ala	Pro	Thr
65					70				75					80	
Gly	Pro	Gly	Gly	Thr	Phe	Pro	Gly	His	Leu	Ala	Ser	Ser	Ala	Arg	Gln
				85				90					95		
Val	Ala	Glu	Leu	Val	Pro	Arg	Leu	Ile	Phe	Leu	Arg	Gln	Thr	Cys	Leu
			100					105					110		
Gln	Arg	Lys	Leu	Cys	Ser	Thr	Gly	Glu	Thr	Gly	Lys	Cys	Thr	Arg	Tyr
		115					120					125			
Trp	Leu	Ile													
			130												

<210> 3409

<211> 959

<212> DNA

<213> Homo sapiens

<400> 3409

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 120  
 gagagagagg aaccttgccg gtccgaggca gctctgcgcg tcccctcctg cgcttagcat  
 180  
 cctcgcccca gcgcggcccg caccgccatg gaggtgctgg agagcgggga gcagggcgtg  
 240



ctgcagtggg accgcaagct gagcgagctg tcagagcccc gggacggcga ggccctcatg  
 300  
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 480  
 cagtcgccct tcacccacat taccaccagt gacagcttca atgacgatga ggtggaaagt  
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 nngagaaatg gtacctgtct acagacttcc cttcaacatc catcaagaca gagccagtta  
 600  
 cagacgaacc acccccagga ctggttccgt ctgtcactct gaccatcaca gccatctcca  
 660  
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 720  
 cagaccatta ttctataaat taagctggag cctcatgaag tggatcagtt tctaaacttc  
 780  
 tctctaaag aaggtctgtc tngccctccc tgtgtccctt tgggttatgg atatggtctc  
 840  
 tgggtctaca gagagggaaat atggcgagag agctgggatg agtttgtacc acagatgttg  
 900  
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 959

&lt;210&gt; 3410

&lt;211&gt; 144

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3410

Met	Glu	Val	Leu	Glu	Ser	Gly	Glu	Gln	Gly	Val	Leu	Gln	Trp	Asp	Arg
1			5						10					15	
Lys	Leu	Ser	Glu	Leu	Ser	Glu	Pro	Gly	Asp	Gly	Glu	Ala	Leu	Met	Tyr
			20					25					30		
His	Thr	His	Phe	Ser	Glu	Leu	Leu	Asp	Glu	Phe	Ser	Gln	Asn	Val	Leu
			35				40					45			
Gly	Gln	Leu	Leu	Asn	Asp	Pro	Phe	Leu	Ser	Glu	Lys	Ser	Val	Ser	Met
			50			55					60				
Glu	Val	Glu	Pro	Ser	Pro	Thr	Ser	Pro	Ala	Pro	Leu	Ile	Gln	Ala	Glu
					70					75				80	
His	Ser	Tyr	Ser	Leu	Cys	Glu	Glu	Pro	Arg	Ala	Gln	Ser	Pro	Phe	Thr
				85				90					95		
His	Ile	Thr	Thr	Ser	Asp	Ser	Phe	Asn	Asp	Asp	Glu	Val	Glu	Ser	Xaa
			100					105					110		
Arg	Asn	Gly	Thr	Cys	Leu	Gln	Thr	Ser	Leu	Gln	His	Pro	Ser	Arg	Gln
		115				120					125				
Ser	Gln	Leu	Gln	Thr	Asn	His	Pro	Gln	Asp	Ser	Phe	Arg	Leu	Ser	Leu
		130				135					140				

&lt;210&gt; 3411

&lt;211&gt; 958

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3411

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 ggccggccgt tgtgccctca tccctccac ccttccttcg tatagettc tttctctca  
 120  
 cgacggcctc cacagtccgg agcccggcgg agcccgacc tggcggggag agctgcctcc  
 180  
 acggcggggc acccagacc caccgtcgca gtcgccacca cctcagtcca tccttggtac  
 240  
 cggcaatggg cttcgtatcc tccagtgcac ttgtaactga cttggacacg gaatactaag  
 300  
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 360  
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 420  
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 540  
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 600  
 ctgcagctga aagacattct cagaaaacaa gatgagtatc atatggttca tctagtatgt  
 660  
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 720  
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 958

&lt;210&gt; 3412

&lt;211&gt; 185

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3412

Met	Asp	Gln	Ser	Gly	Met	Glu	Ile	Pro	Val	Thr	Leu	Ile	Ile	Lys	Ala
1				5				10						15	
Pro	Asn	Gln	Lys	Tyr	Ser	Asp	Gln	Thr	Ile	Ser	Cys	Phe	Leu	Asn	Trp
			20					25					30		
Thr	Val	Gly	Lys	Leu	Lys	Thr	His	Leu	Ser	Asn	Val	Tyr	Pro	Ser	Lys
		35					40					45			
Pro	Leu	Thr	Lys	Asp	Gln	Arg	Leu	Val	Tyr	Ser	Gly	Arg	Leu	Leu	Pro
	50					55					60				
Asp	His	Leu	Gln	Leu	Lys	Asp	Ile	Leu	Arg	Lys	Gln	Asp	Glu	Tyr	His
65					70					75				80	
Met	Val	His	Leu	Val	Cys	Thr	Ser	Arg	Thr	Pro	Pro	Ser	Ser	Pro	Lys
				85					90					95	
Ser	Ser	Thr	Asn	Arg	Glu	Ser	His	Glu	Ala	Leu	Ala	Ser	Ser	Ser	Asn

	100		105		110
Ser	Ser Ser Asp His Ser Gly Ser Thr Thr Pro Ser Ser Gly Gln Glu				
	115		120		125
Thr	Leu Ser Leu Ala Val Gly Ser Ser Ser Glu Gly Leu Arg Gln Arg				
	130		135		140
Thr	Leu Pro Gln Ala Gln Thr Asp Gln Ala Gln Ser His Gln Phe Pro				
145		150		155	160
Tyr	Val Met Gln Gly Asn Val Asp Asn Gln Phe Pro Gly Gln Ala Ala				
	165		170		175
Pro	Pro Gly Phe Pro Val Tyr Pro Ala				
	180		185		

&lt;210&gt; 3413

&lt;211&gt; 3344

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3413

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240
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360
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420
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1080

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<210> 3414

<211> 723

<212> PRT

<213> Homo sapiens

<400> 3414

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Tyr	Gly	Cys	Val	Gln	Gln	Pro	Lys	Thr	Gln	Glu	Ser	Lys	Leu	Lys	Ile	35	40	45	
Gly	Gly	Val	Ser	Ser	Val	Asn	Glu	Arg	Pro	Ile	Ala	Gln	Gln	Leu	Asn	50	55	60	
Pro	Gly	Phe	Gln	Leu	Ser	Phe	Ala	Ser	Ser	Gly	Pro	Ser	Val	Leu	Leu	65	70	75	80
Pro	Ser	Val	Pro	Ala	Val	Ala	Ile	Lys	Val	Phe	Cys	Ser	Gly	Cys	Lys	85	90	95	
Lys	Met	Leu	Tyr	Lys	Gly	Gln	Thr	Ala	Tyr	His	Lys	Thr	Gly	Ser	Thr	100	105	110	
Gln	Leu	Phe	Cys	Ser	Thr	Arg	Cys	Ile	Thr	Arg	His	Ser	Ser	Pro	Ala	115	120	125	
Cys	Leu	Pro	Pro	Pro	Lys	Lys	Thr	Cys	Thr	Asn	Cys	Ser	Lys	Asp		130	135	140	
Ile	Leu	Asn	Pro	Lys	Asp	Val	Ile	Thr	Thr	Arg	Phe	Glu	Asn	Ser	Tyr	145	150	155	160
Pro	Ser	Lys	Asp	Phe	Cys	Ser	Gln	Ser	Cys	Leu	Ser	Ser	Tyr	Glu	Leu	165	170	175	
Lys	Lys	Lys	Pro	Val	Val	Thr	Ile	Tyr	Thr	Lys	Ser	Ile	Ser	Thr	Lys	180	185	190	
Cys	Ser	Met	Cys	Gln	Lys	Asn	Ala	Asp	Thr	Arg	Phe	Glu	Val	Lys	Tyr				

195 200 205  
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 His Ser Thr Asn Asn Leu Thr Thr Asn Cys Cys Glu Asn Cys Gly Ser  
 225 230 235 240  
 Tyr Cys Tyr Ser Ser Ser Gly Pro Cys Gln Ser Gln Lys Val Phe Ser  
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 Ser Thr Ser Val Thr Ala Tyr Lys Gln Asn Ser Ala Gln Ile Pro Pro  
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 Ser Ala Tyr Arg Val Lys Thr Val Thr Ser Ala Gly Val Gln Val Ser  
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 Cys His Ser Cys Lys Thr Ser Ala Ile Pro Gln Tyr His Leu Ala Met  
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 340 345 350  
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 Pro Leu Ser Gln Gly Gln Val Val Val Ser Pro Pro Ser Ser Arg Ser  
 370 375 380  
 Ala Val Ser Ile Gly Gly Gly Asn Thr Ser Ala Val Ser Pro Ser Ser  
 385 390 395 400  
 Ile Arg Gly Ser Ala Ala Ala Ser Leu Gln Pro Leu Gly Glu Gln Ser  
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 Gln Gln Val Ala Leu Thr His Thr Val Val Lys Leu Lys Cys Gln His  
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 Cys Asn His Leu Phe Ala Thr Lys Pro Glu Leu Leu Phe Tyr Lys Gly  
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 Lys Asn Lys Val Val Ala Met Cys Glu Tyr Cys Lys Ile Glu Lys Ile  
 465 470 475 480  
 Val Lys Glu Thr Val Arg Phe Ser Gly Ala Asp Lys Ser Phe Cys Ser  
 485 490 495  
 Glu Gly Cys Lys Leu Leu Tyr Lys His Asp Leu Ala Lys Arg Trp Gly  
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 Asn His Cys Lys Met Cys Ser Tyr Cys Ser Gln Thr Ser Pro Asn Leu  
 515 520 525  
 Val Gln Asn Arg Leu Glu Gly Lys Leu Glu Glu Phe Cys Cys Glu Asp  
 530 535 540  
 Cys Met Ser Lys Phe Thr Val Leu Phe Tyr Gln Met Ala Lys Cys Asp  
 545 550 555 560  
 Gly Cys Lys Arg Gln Gly Lys Leu Ser Glu Ser Ile Lys Trp Arg Gly  
 565 570 575  
 Asn Ile Lys His Phe Cys Asn Leu Phe Cys Val Leu Glu Phe Cys His  
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 Gln Gln Ile Met Asn Asp Cys Leu Pro Gln Asn Lys Val Asn Ile Ser  
 595 600 605  
 Lys Ala Lys Thr Ala Val Thr Glu Leu Pro Ser Ala Arg Thr Asp Thr  
 610 615 620  
 Thr Pro Val Ile Thr Ser Val Met Ser Leu Ala Lys Ile Pro Ala Thr

625		630		635		640									
Leu	Ser	Thr	Gly	Asn	Thr	Asn	Ser	Val	Leu	Lys	Gly	Ala	Val	Thr	Lys
			645					650						655	
Glu	Ala	Ala	Lys	Ile	Ile	Gln	Asp	Glu	Ser	Thr	Gln	Glu	Asp	Ala	Met
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Lys	Phe	Pro	Ser	Ser	Gln	Ser	Ser	Gln	Pro	Ser	Arg	Leu	Leu	Lys	Asn
	675					680					685				
Lys	Gly	Ile	Ser	Cys	Lys	Pro	Val	Thr	Gln	Thr	Lys	Ala	Thr	Ser	Cys
	690					695				700					
Lys	Pro	His	Thr	Gln	His	Lys	Glu	Cys	Gln	Thr	Glu	Cys	Pro	Val	Arg
705					710					715					720
Ala	Val	Cys													

&lt;210&gt; 3415

&lt;211&gt; 3501

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3415

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1020

```

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&lt;210&gt; 3416

&lt;211&gt; 259

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3416

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&lt;210&gt; 3417

&lt;211&gt; 405

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3417

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&lt;210&gt; 3418

&lt;211&gt; 94

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3418

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<211> 418

<212> PRT

<213> Homo sapiens

<400> 3422

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&lt;210&gt; 3423

&lt;211&gt; 1851

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3423

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 cccctccct tgtgtgtatg tgacagcgtg tatgtaacgg cttctgattt ctgtgaaagc  
 1320  
 tgctcagcaa caaacgtact tccaccagat gtgtccccag atccacagca ggcacatatc  
 1380  
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 1416

&lt;210&gt; 3426

&lt;211&gt; 410

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3426

Ser Gly Gly Lys Gly Leu Cys Cys Cys Ala Arg Ala Gly Ala Ala Ala  
 1 5 10 15  
 Ala Pro Gly Pro Ala Ser Arg Arg Gly Ala Val Gln Ala Gly Gly Asp  
 20 25 30  
 Ser Leu Gly Arg Asp Pro Gly Arg Glu Glu Glu Val Arg Pro Arg Gly  
 35 40 45  
 Arg Lys Ala Ala Ser Pro Gly Ala Pro Arg Pro Trp Pro Arg His Ser  
 50 55 60  
 Thr His Met Ala Ser Gly Val Gly Ala Ala Phe Glu Glu Leu Pro His

```

65          70          75          80
Asp Gly Thr Cys Asp Glu Cys Glu Pro Asp Glu Ala Pro Gly Ala Glu
      85          90          95
Glu Val Cys Arg Glu Cys Gly Phe Cys Tyr Cys Arg Arg His Ala Glu
      100         105         110
Ala His Arg Gln Lys Phe Leu Ser His His Leu Ala Glu Tyr Val His
      115         120         125
Gly Ser Gln Ala Trp Thr Pro Pro Ala Asp Gly Glu Gly Ala Gly Lys
      130         135         140
Glu Glu Ala Glu Val Lys Val Glu Gln Glu Arg Glu Ile Glu Ser Glu
145         150         155         160
Ala Gly Glu Glu Ser Glu Ser Glu Glu Glu Ser Glu Ser Glu Glu
      165         170         175
Ser Glu Thr Glu Glu Glu Ser Glu Asp Glu Ser Asp Glu Glu Ser Glu
      180         185         190
Glu Asp Ser Glu Glu Glu Met Glu Asp Glu Gln Glu Ser Glu Ala Glu
      195         200         205
Glu Asp Asn Gln Glu Glu Gly Glu Ser Glu Ala Glu Gly Glu Thr Glu
      210         215         220
Ala Glu Ser Glu Phe Asp Pro Glu Ile Glu Met Glu Ala Glu Arg Val
225         230         235         240
Ala Lys Arg Lys Cys Pro Asp His Gly Leu Asp Leu Ser Thr Tyr Cys
      245         250         255
Gln Glu Asp Arg Gln Leu Ile Cys Val Leu Cys Pro Val Ile Gly Ala
      260         265         270
His Gln Gly His Gln Leu Ser Thr Leu Asp Glu Ala Phe Glu Glu Leu
      275         280         285
Arg Ser Lys Asp Ser Gly Gly Leu Lys Ala Ala Met Ile Glu Leu Val
      290         295         300
Glu Arg Leu Lys Phe Lys Ser Ser Asp Pro Lys Val Thr Arg Asp Gln
305         310         315         320
Met Lys Met Phe Ile Gln Gln Glu Phe Lys Lys Val Gln Lys Val Ile
      325         330         335
Ala Asp Glu Glu Gln Lys Ala Leu His Leu Val Asp Ile Gln Glu Ala
      340         345         350
Met Ala Thr Ala His Val Thr Glu Ile Leu Ala Asp Ile Gln Ser His
      355         360         365
Met Asp Arg Leu Met Thr Gln Met Ala Gln Ala Lys Glu Gln Leu Asp
      370         375         380
Thr Ser Asn Glu Ser Ala Glu Pro Lys Ala Glu Gly Asp Glu Glu Gly
385         390         395         400
Pro Ser Gly Ala Ser Glu Glu Glu Asp Thr
      405         410

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&lt;210&gt; 3427

&lt;211&gt; 580

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3427

```

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60
ccggatttca atgtcatagt tcccattgtc aatgacatca tcggagaact tgacctgctg
120

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 180  
 caggattttc tctggacaca actctgaact tagactcttt aaggactctg cactcctgtg  
 240  
 cagcatggaa gagttcaaag ttcccatatt gctcatcttc tcacaatctt ctgtttccat  
 300  
 ctctcaaaa ttttgcagag aatacaatga tggccttggc ttgttttctc catccaccga  
 360  
 agccctgtg atattggaca atgccaaga atccatcgaa tcccgaacac ttgctctgg  
 420  
 tttcaggtct gacagacact ccagggaatc ttcataccac tgtgtttcat catgattata  
 480  
 ccctgaagcc ccatgggtcca gttccaattc ctgaagcctt ctactgcttg cagggcctgg  
 540  
 gtggctgcc taagcagaat cgcccagtcc atcttgtgac  
 580

<210> 3428

<211> 132

<212> PRT

<213> Homo sapiens

<400> 3428

Met	Asp	Ser	Leu	Ala	Leu	Ser	Asn	Ile	Thr	Gly	Ala	Ser	Val	Asp	Gly
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Glu	Asn	Lys	Pro	Arg	Pro	Ser	Leu	Tyr	Ser	Leu	Gln	Asn	Phe	Glu	Glu
			20					25					30		
Met	Glu	Thr	Glu	Asp	Cys	Glu	Lys	Met	Ser	Asn	Met	Gly	Thr	Leu	Asn
		35					40					45			
Ser	Ser	Met	Leu	His	Arg	Ser	Ala	Glu	Ser	Leu	Lys	Ser	Leu	Ser	Ser
		50				55					60				
Glu	Leu	Cys	Pro	Glu	Lys	Ile	Leu	Pro	Glu	Glu	Lys	Pro	Val	His	Leu
65					70					75				80	
Pro	Val	Leu	Arg	Arg	Ser	Lys	Ser	Gln	Ser	Arg	Pro	Gln	Gln	Val	Lys
			85					90						95	
Phe	Ser	Asp	Asp	Val	Ile	Asp	Asn	Gly	Asn	Tyr	Asp	Ile	Glu	Ile	Arg
			100					105					110		
Gln	Pro	Pro	Met	Ser	Glu	Arg	Thr	Arg	Arg	Arg	Val	Tyr	Asn	Phe	Glu
			115					120					125		
Glu	Arg	Gly	Ser												
			130												

<210> 3429

<211> 634

<212> DNA

<213> Homo sapiens

<400> 3429

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 60  
 aggggaaggga gccggcagct ggatgtggca ggatgatttc tcttgagagt agccctcgcg  
 120  
 gtcagcttcc ttttcatact ttccggcgct tctctccacg agcaggtgca ccagggacct  
 180

gtccctctgt cctacacggt caccacagtg acgacccaag gcttcccctt gcctacaggc  
 240  
 cagcacatcc ctggctgcag tgcccagcag ctcccagcat gctccgtgat gttcagtggg  
 300  
 cagcattacc ccctctgctg cctcccgcgc ccgcttatcc aggcggtgcac catgcagcag  
 360  
 ctgcctgtgc cctatcaggg ctacccccac ctcatctcca gtgaccacta catcctgcac  
 420  
 cccccaccac cgggcacaca cccagcagct ccagggtctg tataagaaac cctgtggaag  
 480  
 gcccatccct gtccataggcc acccaggcag gacactccac tgtaaggcc cacagcctca  
 540  
 actcctgggc ctctgccaag ctgtgaggca ggtacagggg tactggaagg ttctgaacc  
 600  
 ttgaaacact ctattaccaa atgtgaacac gcgt  
 634

&lt;210&gt; 3430

&lt;211&gt; 122

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3430

Phe	Leu	Leu	Arg	Val	Ala	Leu	Ala	Val	Ser	Phe	Leu	Phe	Ile	Leu	Ser
1				5					10					15	
Arg	Arg	Ser	Leu	His	Glu	Gln	Val	His	Gln	Gly	Pro	Val	Pro	Leu	Ser
			20					25					30		
Tyr	Thr	Val	Thr	Thr	Val	Thr	Thr	Gln	Gly	Phe	Pro	Leu	Pro	Thr	Gly
		35				40						45			
Gln	His	Ile	Pro	Gly	Cys	Ser	Ala	Gln	Gln	Leu	Pro	Ala	Cys	Ser	Val
	50					55				60					
Met	Phe	Ser	Gly	Gln	His	Tyr	Pro	Leu	Cys	Cys	Leu	Pro	Pro	Pro	Leu
65					70					75				80	
Ile	Gln	Ala	Cys	Thr	Met	Gln	Gln	Leu	Pro	Val	Pro	Tyr	Gln	Ala	Tyr
			85					90					95		
Pro	His	Leu	Ile	Ser	Ser	Asp	His	Tyr	Ile	Leu	His	Pro	Pro	Pro	Pro
		100						105					110		
Gly	Thr	His	Pro	Ala	Ala	Pro	Gly	Ser	Val						
		115					120								

&lt;210&gt; 3431

&lt;211&gt; 1396

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3431

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 60  
 ccatcttcac gctggcgccc ccgctgcatt gccactacgg ggccttcccc cctaagtcc  
 120  
 ctgcgtggga gcagcgtccc aatgccagcg cgtcacgtcg ccagcgtgc cctagcacgc  
 180  
 agcgccgcca gccgtgtcgc caacagtacc aaatcgtcgt gcagcgggtt cgccccgcgc  
 240

gacttcaacc attgcctcaa ggattgggac tataatggcc ttcctgtgct caccaccaac  
 300  
 gccatcggcc agtgggatct ggtgtgtgac ctgggctggc aggtgatcct ggagcagatc  
 360  
 ctcttcatct tgggctttgc ctccggctac ctgttcctgg gttaccccg agacagattt  
 420  
 ggccgtcgcg ggattgtgct gctgacctg gggctgggtg gccctgtgg agtaggaggg  
 480  
 gctgctgcag gctcctccac aggcgtcatg gccctccgat tctcttggg ctttctgctt  
 540  
 gccggtgttg acctgggtgt ctacctgat cgccctggagc tgtgcgaccc aaccagagg  
 600  
 cttcgggtgg ccctggcagg ggagttggtg ggggtgggag ggcacttcct gttcctgggc  
 660  
 ctggcccttg tctctaagga ttggcgattc ctacagcgaa tgatcaccgc tccctgcatc  
 720  
 ctcttctctgt tttatggctg gcctgggttg ttcctggagt ccgcacgggtg gctgatatgt  
 780  
 aagcggcaga ttgaggaggc tcagtctgtg ctgaggatcc tggctgagcg aaaccggccc  
 840  
 catgggcaga tgctggggga ggaggccag gaggcctgc aggacctgga gaatacctgc  
 900  
 cctctccctg caacatcctc cttttccttt gcttcctcc tcaactaccg caacatctgg  
 960  
 aaaaatctgc ttatcctggg cttcaccaac ttcattgccc atgccattcg ccaactgtac  
 1020  
 cagcctgtgg gaggaggagg gagcccatcg gacttctacc tgtgctctct gctggccagc  
 1080  
 ggcaccgcag ccctggcctg tgtcttcctg ggggtcaccg tggaccgatt tggccgccgg  
 1140  
 ggcatecttc ttctctccat gacccttacc ggcattgctt ccctggtcct gctgggctg  
 1200  
 tgggattgtg agcatcctat cttccccaca gtgtgggctc aacaaggga ccccaacaga  
 1260  
 gatctgaacg aggctgccat caccactttc tctgtccttg ggctcttctc ctcccaagct  
 1320  
 gccgccatcc tcagcaccct ccttgctgct gaggtcatcc ccaccactgt ccggggccgt  
 1380  
 ggcctgggcc tgatca  
 1396

&lt;210&gt; 3432

&lt;211&gt; 296

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3432

Met Ala Leu Arg Phe Leu Leu Gly Phe Leu Leu Ala Gly Val Asp Leu  
 1 5 10 15  
 Gly Val Tyr Leu Met Arg Leu Glu Leu Cys Asp Pro Thr Gln Arg Leu  
 20 25 30  
 Arg Val Ala Leu Ala Gly Glu Leu Val Gly Val Gly Gly His Phe Leu  
 35 40 45  
 Phe Leu Gly Leu Ala Leu Val Ser Lys Asp Trp Arg Phe Leu Gln Arg

50	55	60
Met Ile Thr Ala Pro Cys Ile Leu Phe Leu Phe Tyr Gly Trp Pro Gly		
65	70	75
Leu Phe Leu Glu Ser Ala Arg Trp Leu Ile Val Lys Arg Gln Ile Glu		80
	85	90
Glu Ala Gln Ser Val Leu Arg Ile Leu Ala Glu Arg Asn Arg Pro His		95
	100	105
Gly Gln Met Leu Gly Glu Glu Ala Gln Glu Ala Leu Gln Asp Leu Glu		110
	115	120
Asn Thr Cys Pro Leu Pro Ala Thr Ser Ser Phe Ser Phe Ala Ser Leu		125
	130	135
Leu Asn Tyr Arg Asn Ile Trp Lys Asn Leu Leu Ile Leu Gly Phe Thr		140
	145	150
Asn Phe Ile Ala His Ala Ile Arg His Cys Tyr Gln Pro Val Gly Gly		155
	160	165
Gly Gly Ser Pro Ser Asp Phe Tyr Leu Cys Ser Leu Leu Ala Ser Gly		170
	175	180
Thr Ala Ala Leu Ala Cys Val Phe Leu Gly Val Thr Val Asp Arg Phe		185
	190	195
Gly Arg Arg Gly Ile Leu Leu Ser Met Thr Leu Thr Gly Ile Ala		200
	205	210
Ser Leu Val Leu Leu Gly Leu Trp Asp Cys Glu His Pro Ile Phe Pro		215
	220	225
Thr Val Trp Ala Gln Gln Gly Asn Pro Asn Arg Asp Leu Asn Glu Ala		230
	235	240
Ala Ile Thr Thr Phe Ser Val Leu Gly Leu Phe Ser Ser Gln Ala Ala		245
	250	255
Ala Ile Leu Ser Thr Leu Leu Ala Ala Glu Val Ile Pro Thr Thr Val		260
	265	270
Arg Gly Arg Gly Leu Gly Leu Ile		275
	280	285
290	295	

&lt;210&gt; 3433

&lt;211&gt; 1257

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3433

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 tcagtgcctc cttcaccttc acctcgacct ctgccgggag ggagacagcg tccgcagaga  
 120  
 ccgagccact cccgttccca caccaggtcg aacttgaaaa gggacgtcgc ccacctgtac  
 180  
 cgaggagtcg gctcgcgcta catcatgggg tcaggagaat cttcatgca gctgcagcag  
 240  
 cgtctcctga gagagaagga ggccaagatc aggaaggcct tggacaggct tcgcaagaag  
 300  
 aggcacctgc tccgccggca gcggacgagg cgggagttcc ccgtgatctc cgtgggtggg  
 360  
 tacaccaact gcggtgagca cgcgcccagg ggaggggcct tccgcgggtct ccgtgtcacc  
 420  
 ggtgaggact cgcccggggg agggcagggg gtccctgtcg tctcagtggt gccgtacgac  
 480

agctgcggtg agcacgtgcc caggagaggg ggttcccatg gtcgccgtgt ggggtacacc  
 540  
 agctgctgtg agagctcacc caggagacgg gtttcctgtg gtctctgtgt ggggtacagc  
 600  
 agccaagggtg aggatgtcat ctaccccatc ctcccatcca gagctttacc accctgtcta  
 660  
 taccacaacc tccctccat ctacaccatc ctctgtgcta gaccatcccc actgcctat  
 720  
 ctataccacc accctgtcta cacaatccac ccctctacac catcacctct cctctgtcta  
 780  
 taccatctc ctgtctacac cagcaccact acccatcta taccaccacc ccgtctacat  
 840  
 aatccacccg tgtacaccac aatgtccctc tcgtctgcac cgtcctctg tctacactgg  
 900  
 caccactgcc ccagctatac caccaccccg tctacataat ccacccatct gtctacacca  
 960  
 tcgctctcc tctgtctaca ccctcttct gtcaacaccg gcaccactgc cgtatctata  
 1020  
 tccacccatc tacaccatca cctccctgt gtctacacca tctcccatc cacaccagca  
 1080  
 ccaccacccc acctacacca tccaccatc tacgccattg ccaaactctac acagacgacc  
 1140  
 tcactcccat ccacgccttc acacgcacac ccgtccacac caccatctcc cccgtgtccg  
 1200  
 cacggcggcc ccgtccatc ggcccagaaa cagcgacggg ggctttgtcc cacgcgt  
 1257

&lt;210&gt; 3434

&lt;211&gt; 311

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3434

Ala	Thr	Arg	Gly	Ala	Gly	Pro	Gln	Gln	Arg	Leu	Leu	Pro	Ser	Ala	Gln
1			5					10						15	
Arg	Pro	Ser	Ser	Val	Pro	Pro	Ser	Pro	Ser	Pro	Arg	Pro	Leu	Pro	Gly
			20					25					30		
Gly	Arg	Gln	Arg	Pro	Gln	Arg	Pro	Ser	His	Ser	Arg	Ser	His	Thr	Arg
		35				40						45			
Ser	Asn	Leu	Lys	Arg	Asp	Val	Ala	His	Leu	Tyr	Arg	Gly	Val	Gly	Ser
	50					55					60				
Arg	Tyr	Ile	Met	Gly	Ser	Gly	Glu	Ser	Phe	Met	Gln	Leu	Gln	Gln	Arg
65					70				75					80	
Leu	Leu	Arg	Glu	Lys	Glu	Ala	Lys	Ile	Arg	Lys	Ala	Leu	Asp	Arg	Leu
			85					90						95	
Arg	Lys	Lys	Arg	His	Leu	Leu	Arg	Arg	Gln	Arg	Thr	Arg	Arg	Glu	Phe
			100					105					110		
Pro	Val	Ile	Ser	Val	Val	Gly	Tyr	Thr	Asn	Cys	Gly	Glu	His	Ala	Pro
		115					120					125			
Arg	Gly	Gly	Ala	Phe	Arg	Gly	Leu	Arg	Val	Thr	Gly	Glu	Asp	Ser	Pro
	130						135					140			
Gly	Gly	Gly	Gln	Gly	Val	Pro	Val	Val	Ser	Val	Val	Pro	Tyr	Asp	Ser
145					150					155				160	
Cys	Gly	Glu	His	Val	Pro	Arg	Arg	Gly	Gly	Ser	His	Gly	Arg	Arg	Val

165 170 175  
 Gly Tyr Thr Ser Cys Cys Glu Ser Ser Pro Arg Arg Arg Val Ser Cys  
 180 185 190  
 Gly Leu Cys Val Gly Tyr Ser Ser Gln Gly Glu Asp Val Ile Tyr Pro  
 195 200 205  
 Ile Leu Pro Ser Arg Ala Leu Pro Pro Cys Leu Tyr His Asn Leu Pro  
 210 215 220  
 Ser Ile Tyr Thr Ile Leu Leu Ser Arg Pro Ser Pro Leu Pro Tyr Leu  
 225 230 235 240  
 Tyr His His Pro Val Tyr Thr Ile His Pro Ser Thr Pro Ser Pro Leu  
 245 250 255  
 Leu Cys Leu Tyr His Pro Pro Val Tyr Thr Ser Thr Thr Thr Pro Ser  
 260 265 270  
 Ile Pro Pro Pro Arg Leu His Asn Pro Pro Val Tyr Thr Thr Met Ser  
 275 280 285  
 Pro Ser Ser Ala Pro Ser Ser Cys Leu His Trp His His Cys Pro Ser  
 290 295 300  
 Tyr Thr Thr Thr Pro Ser Thr  
 305 310

&lt;210&gt; 3435

&lt;211&gt; 1225

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3435

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 120  
 gacagcaatg ccgataccta ctgggagagc gatgggtccc agtgccaaca ctgggtacgg  
 180  
 cttactatga agaagggcac cattgtcaag aagctgctac tcgcagtgga taccacagat  
 240  
 gacaacttta tgccaaagcg ggtgggtggtc tatgggggtg aaggggacaa cctgaagaag  
 300  
 ctgagtgcag tgagcattga cnngagaccc tcatcggggn atgtctgtgt cctggaggac  
 360  
 atgaccgtcc acctcccgat catcgagatc cgcacgtgg agtgccgaga tgatgggatt  
 420  
 gatgttcgtc tccgaggggt caagatcaag tcatctagac agcgggaact agggttgaat  
 480  
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 540  
 gaagtactgt accgcagagc tgtcctcctg cagagattca tcaagatcct cgatagtgtc  
 600  
 ctgcaccacc tggtaacctgc ctgggaccac aactgggca ccttcagtga gattaagcaa  
 660  
 gtgaagcagt tctactgct gtcccgccag cggccaggcc tgggtggtca gtgcctgcgt  
 720  
 gactctgaga gcagcaagcc cagcttcatg ccacgcctat acatcaaccg ccgtcttgcc  
 780  
 atggaacacc gtgcctgccc ctctcgagac cctgcctgca agaatgcagt cttcaccag  
 840



gtatatgaag gcctcaagcc ctctgacaaa tatgaaaagc ccctggacta caggtggccc  
 900  
 atgcgctatg accagtgggtg ggagtgtaaa tttattgcag aaggcatcat tgaccaaggg  
 960  
 ggtgggtttcc gggacagcct ggcagatatg tcagaagagc tgtgccctag ctcagcggat  
 1020  
 acccccgtgc ccctgccctt ctttgtacgc acagccaacc agggcaatgg cactgggtgag  
 1080  
 gctcgggaca tgtatgtacc caaccctcc tgccgagact ttgccaagta tgaatggatc  
 1140  
 ggacagctga tgggggctgc ccttcggggg aaggagttcc tggtcctggc cctgcctggg  
 1200  
 tttgtgtgga agcagctttc tgcag  
 1225

<210> 3436

<211> 408

<212> PRT

<213> Homo sapiens

<400> 3436

Xaa	His	Ser	Leu	Tyr	Asp	His	Trp	Gly	Lys	Glu	Asp	Glu	Asn	Leu	Gly
1			5					10					15		
Ser	Val	Lys	Gln	Tyr	Val	Glu	Ser	Ile	Asp	Val	Ser	Ser	Tyr	Thr	Glu
		20						25					30		
Glu	Phe	Asn	Val	Ser	Cys	Leu	Thr	Asp	Ser	Asn	Ala	Asp	Thr	Tyr	Trp
		35					40					45			
Glu	Ser	Asp	Gly	Ser	Gln	Cys	Gln	His	Trp	Val	Arg	Leu	Thr	Met	Lys
		50				55				60					
Lys	Gly	Thr	Ile	Val	Lys	Lys	Leu	Leu	Leu	Ala	Val	Asp	Thr	Thr	Asp
65					70					75				80	
Asp	Asn	Phe	Met	Pro	Lys	Arg	Val	Val	Val	Tyr	Gly	Gly	Glu	Gly	Asp
				85					90					95	
Asn	Leu	Lys	Lys	Leu	Ser	Asp	Val	Ser	Ile	Asp	Xaa	Arg	Pro	Ser	Ser
		100					105						110		
Gly	Xaa	Val	Cys	Val	Leu	Glu	Asp	Met	Thr	Val	His	Leu	Pro	Ile	Ile
		115					120					125			
Glu	Ile	Arg	Ile	Val	Glu	Cys	Arg	Asp	Asp	Gly	Ile	Asp	Val	Arg	Leu
		130				135					140				
Arg	Gly	Val	Lys	Ile	Lys	Ser	Ser	Arg	Gln	Arg	Glu	Leu	Gly	Leu	Asn
145					150					155				160	
Ala	Asp	Leu	Phe	Gln	Pro	Thr	Ser	Leu	Val	Arg	Tyr	Pro	Arg	Leu	Glu
				165					170					175	
Gly	Thr	Asp	Pro	Glu	Val	Leu	Tyr	Arg	Arg	Ala	Val	Leu	Leu	Gln	Arg
		180					185						190		
Phe	Ile	Lys	Ile	Leu	Asp	Ser	Val	Leu	His	His	Leu	Val	Pro	Ala	Trp
		195					200					205			
Asp	His	Thr	Leu	Gly	Thr	Phe	Ser	Glu	Ile	Lys	Gln	Val	Lys	Gln	Phe
		210				215					220				
Leu	Leu	Leu	Ser	Arg	Gln	Arg	Pro	Gly	Leu	Val	Ala	Gln	Cys	Leu	Arg
225					230					235				240	
Asp	Ser	Glu	Ser	Ser	Lys	Pro	Ser	Phe	Met	Pro	Arg	Leu	Tyr	Ile	Asn
				245					250					255	
Arg	Arg	Leu	Ala	Met	Glu	His	Arg	Ala	Cys	Pro	Ser	Arg	Asp	Pro	Ala

260 265 270  
 Cys Lys Asn Ala Val Phe Thr Gln Val Tyr Glu Gly Leu Lys Pro Ser  
 275 280 285  
 Asp Lys Tyr Glu Lys Pro Leu Asp Tyr Arg Trp Pro Met Arg Tyr Asp  
 290 295 300  
 Gln Trp Trp Glu Cys Lys Phe Ile Ala Glu Gly Ile Ile Asp Gln Gly  
 305 310 315 320  
 Gly Gly Phe Arg Asp Ser Leu Ala Asp Met Ser Glu Glu Leu Cys Pro  
 325 330 335  
 Ser Ser Ala Asp Thr Pro Val Pro Leu Pro Phe Phe Val Arg Thr Ala  
 340 345 350  
 Asn Gln Gly Asn Gly Thr Gly Glu Ala Arg Asp Met Tyr Val Pro Asn  
 355 360 365  
 Pro Ser Cys Arg Asp Phe Ala Lys Tyr Glu Trp Ile Gly Gln Leu Met  
 370 375 380  
 Gly Ala Ala Leu Arg Gly Lys Glu Phe Leu Val Leu Ala Leu Pro Gly  
 385 390 395 400  
 Phe Val Trp Lys Gln Leu Ser Ala  
 405

&lt;210&gt; 3437

&lt;211&gt; 2081

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3437

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&lt;210&gt; 3438

&lt;211&gt; 105

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3438

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<211> 287

<212> PRT

<213> Homo sapiens

<400> 3440

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			20					25					30		
Val	Ala	Ala	Ala	Ala	Arg	Trp	Pro	Arg	Gln	Pro	Arg	His	Pro	Arg	His
			35				40					45			
Thr	Ser	Pro	Met	Pro	Pro	Pro	Ala	Ala	Leu	Arg	Pro	Pro	Ala	Gly	Pro
						55					60				
Arg	Arg	Pro	Arg	Xaa	Pro	Gly	Gly	Pro	Gln	His	His	Gln	Pro	Gln	Pro
65					70				75					80	
Pro	Leu	Trp	Thr	Pro	Thr	Pro	Pro	Ser	Pro	Ala	Ser	Asp	Trp	Pro	Pro
				85					90				95		
Leu	Pro	Pro	Asn	Arg	Pro	Pro	Gln	Asn	Pro	Gly	Pro	Thr	Leu	Pro	Trp
			100					105					110		
Arg	Gln	Arg	Asp	Lys	Gly	Gly	Pro	Ser	Pro	Leu	Pro	Glu	Ala	Arg	Thr
			115				120					125			
Pro	Trp	Gly	Gly	Gly	Glu	Asp	Val	Ser	Ala	Gly	Pro	Leu	Xaa	Thr	Pro
			130			135					140				
Phe	Leu	Ser	Ala	Pro	Leu	Val	Pro	Arg	Ser	Pro	Gly	Gly	Glu	Ser	Ala
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Asp	Ser	Ser	Gln	Ala	Gly	Thr	Arg	Leu	Val	Pro	Glu	His	Ala	Ala	Ala
				165					170					175	
His	Thr	Gln	Gly	His	Gly	Pro	Ser	Gly	Pro	Gly	Thr	Trp	Ser	Gly	Ser
			180					185					190		
Glu	Arg	Pro	Gly	Cys	Leu	Ala	Asp	Arg	Thr	Ser	Glu	Thr	Thr	Gln	Pro
			195				200					205			
Ser	Phe	Glu	Asp	Ala	Pro	Ala	Gln	Pro	Ser	Pro	Gly	Val	Pro	Trp	Arg
			210			215					220				
Thr	Thr	Leu	Ala	Glu	Thr	Leu	Leu	Ile	Pro	Gly	Leu	Glu	Leu	Leu	Gly
225					230					235				240	
Gly	Arg	Gln	Ala	Ser	Thr	Pro	Thr	Leu	Gly	Asn	Ala	Glu	Pro	Leu	Arg
				245					250					255	
Met	Cys	Ala	Arg	Gly	Arg	Val	Cys	Val	Phe	Leu	Arg	Val	Ser	Leu	Phe

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Arg	Ser	Asn	Leu	Val	Pro	Gly	Ala	Ala	Gly	Leu	Cys	Met	Leu	Val
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&lt;210&gt; 3441

&lt;211&gt; 2074

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3441

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1320

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<210> 3442

<211> 374

<212> PRT

<213> Homo sapiens

<400> 3442

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Ala	Glu	Leu	Leu	Met	Ser	Leu	His	Asp	Leu	Asp	Val	Gly	Glu	Ile	Cys
		35				40					45				
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Arg	Glu	Arg	Phe	Val	Asp	Ser	Lys	Arg	Ala	Arg	Glu	Leu	Gln	Gly	Phe
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Met	Ile	Leu	Cys	Asp	Pro	Phe	Ala	Ile	Asn	Thr	Leu	Ala	Leu	Ser	Thr
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His Ile Thr Lys Gln Arg Asn Lys Asn Ala Leu Leu Arg Leu Leu Pro
      225      230      235      240
Gly Leu Val Glu Thr Phe Gly Asp Leu Ala Phe Gly Asp Ile Phe Leu
      245      250      255
His Leu Leu Thr Gly Asn Leu Ala Leu Leu Ala Asp Glu Phe Ala Leu
      260      265      270
Glu Asp Phe Cys Ser Ser Leu Phe Asp Gly Phe Phe Leu Thr Ala Ser
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Pro Arg Lys Glu Asn Val His Arg His Ala Leu Arg Leu Leu Ile His
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Leu His Pro Arg Val Ala Pro Ser Lys Leu Glu Ala Leu Gln Lys Ala
      305      310      315      320
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Gln Leu Gly Glu Lys Leu Glu Gln Leu Asp His Arg Lys Pro Ser Pro
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Pro Ala Pro Ala Pro Leu
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&lt;210&gt; 3443

&lt;211&gt; 2070

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3443

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&lt;210&gt; 3444

&lt;211&gt; 579

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3444

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 50 55 60  
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 Asp Gly Thr Leu Tyr Cys Gln Val Pro Cys Lys Gly Leu Asn Lys Leu  
 145 150 155 160  
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 165 170 175  
 Thr Ser Glu Cys Phe Val Ser Leu Pro Phe Cys Gly Lys Ile Cys Leu  
 180 185 190  
 Phe His Cys Lys Gly Lys Trp Leu Arg Val Glu Ile Thr Asn Val His  
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 Ser Ser Arg Ala Leu Asp Val Gln Phe Leu Asp Ser Gly Thr Val Thr  
 210 215 220  
 Ser Val Lys Val Ser Glu Leu Arg Glu Ile Pro Pro Arg Phe Leu Gln  
 225 230 235 240  
 Glu Met Ile Ala Ile Pro Pro Gln Ala Ile Lys Cys Cys Leu Ala Asp  
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 260 265 270  
 Arg Asp Ser Val Leu Asn Cys Ser Asp Cys Ser Ile Lys Val Thr Lys  
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 305 310 315 320  
 Asp Leu Trp Lys His Gln Lys Asp Val Phe Leu Ser Ala Ile Ser Ser  
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 Gly Ala Asp Ser Pro Asn Ser Lys Asn Gly Asn Met Pro Met Ser Gly  
 340 345 350  
 Asn Thr Gly Glu Asn Phe Arg Lys Asn Leu Thr Asp Val Ile Lys Lys  
 355 360 365  
 Ser Met Val Asp His Thr Ser Ala Phe Ser Thr Glu Leu Pro Pro  
 370 375 380  
 Pro Val His Leu Ser Lys Pro Gly Glu His Met Asp Val Tyr Val Pro  
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 Val Ala Cys His Pro Gly Tyr Phe Val Ile Gln Pro Trp Gln Glu Ile

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 Ser Glu Glu Arg His Ile Ala Val Glu Lys Asp Gln Val Tyr Ala Ala  
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 Lys Val Glu Asn Lys Trp His Arg Val Leu Leu Lys Gly Ile Leu Thr  
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 Asn Gly Leu Val Ser Val Tyr Glu Leu Asp Tyr Gly Lys His Glu Leu  
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 Val Asn Ile Arg Lys Val Gln Pro Leu Val Asp Met Phe Arg Lys Leu  
 485 490 495  
 Pro Phe Gln Ala Val Thr Ala Gln Leu Ala Gly Val Lys Cys Asn Gln  
 500 505 510  
 Trp Ser Glu Glu Ala Ser Met Val Phe Arg Asn His Val Glu Lys Lys  
 515 520 525  
 Pro Leu Val Ala Leu Val Gln Thr Val Ile Glu Asn Ala Asn Pro Trp  
 530 535 540  
 Asp Arg Lys Val Val Val Tyr Leu Val Asp Thr Ser Leu Pro Asp Thr  
 545 550 555 560  
 Asp Thr Trp Ile His Asp Phe Met Ser Glu Tyr Leu Ile Glu Leu Ser  
 565 570 575  
 Lys Val Asn

&lt;210&gt; 3445

&lt;211&gt; 2086

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3445

nnacgcgtgg cggcagaggg taccgaagc cggacctggc gcgcaggcgc tgacctgacc  
 60  
 tggcagtgg ctggccgagg ccttggtga gaggcctaa ccccgccggg cggcgcgcgc  
 120  
 cctgcatgag agttgggccc cgggcggggg tggagcctac tcggggcgac tgcgatggac  
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840  
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1980  
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2040  
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2086

&lt;210&gt; 3446

&lt;211&gt; 169

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3446

Met Asp Ala Leu Glu Gly Glu Ser Phe Ala Leu Ser Phe Ser Ser Ala

```

1           5           10           15
Ser Asp Ala Glu Phe Asp Ala Val Val Gly Tyr Leu Glu Asp Ile Ile
20           25           30
Met Asp Asp Glu Phe Gln Leu Leu Gln Arg Asn Phe Met Asp Lys Tyr
35           40           45
Tyr Leu Glu Phe Glu Asp Thr Glu Glu Asn Lys Leu Ile Tyr Thr Pro
50           55           60
Ile Phe Asn Glu Tyr Ile Ser Leu Val Glu Lys Tyr Ile Glu Glu Gln
65           70           75           80
Leu Leu Gln Arg Ile Pro Glu Phe Asn Met Ala Ala Phe Thr Thr Thr
85           90           95
Leu His His Leu Phe Arg Leu Arg His His Lys Asp Glu Val Ala Gly
100          105          110
Asp Ile Phe Asp Met Leu Leu Thr Phe Thr Asp Phe Leu Ala Phe Lys
115          120          125
Glu Met Phe Leu Asp Tyr Arg Ala Glu Lys Glu Gly Arg Gly Leu Asp
130          135          140
Leu Ser Ser Gly Leu Val Val Thr Ser Leu Cys Lys Ser Ser Ser Leu
145          150          155          160
Pro Ala Ser Gln Asn Asn Leu Arg His
165

```

&lt;210&gt; 3447

&lt;211&gt; 936

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3447

```

acgcgtgaag ggtttgctggg gaagatggag tatcccgctc cggccacggt gcaggccgctg
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180
ccggtgggta gagaggaagt ggagcacatg atccagaaga accaatgtct cttcaccaac
240
accagtgtta aggtttgctg cgccttgctt atttctgagt ccagaagct ggcacattac
300
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360
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420
aaccagtgtc gcccctctg taacatgacc ttttcctccc ctgtcgtggc ccagtcgcac
480
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540
gccttgacc agaatagaga gatgatagac ccagacaagt tctgcagcct ctgccatgca
600
actttcaacg accctgtcat ggctcaacaa cattatgtgg gcaagaaaca cagaaaacag
660
gagaccaagc tcaactaat ggcacgctat gggcggtgg cggaccctgc tgtcactgac
720
tttccagctg gaaagggcta ccctgcaaa acatgtaaga tagtgctgaa ctccatagaa
780

```

cagtaccaag ctcatgtcag cggcttcaaa cacaagaacc agtcacaaa aacagtggca  
 840  
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 900  
 gaagactaga ggtgattctg cccagcatcc catatt  
 936

<210> 3448  
 <211> 302  
 <212> PRT  
 <213> Homo sapiens

<400> 3448  
 Thr Arg Glu Gly Phe Ala Gly Lys Met Glu Tyr Pro Ala Pro Ala Thr  
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 Val Gln Ala Ala Asp Gly Gly Ala Ala Gly Pro Tyr Ser Ser Ser Glu  
 20 25 30  
 Leu Leu Glu Gly Gln Glu Pro Asp Gly Val Arg Phe Asp Arg Glu Arg  
 35 40 45  
 Ala Arg Arg Leu Trp Glu Ala Val Ser Gly Ala Gln Pro Val Gly Arg  
 50 55 60  
 Glu Glu Val Glu His Met Ile Gln Lys Asn Gln Cys Leu Phe Thr Asn  
 65 70 75 80  
 Thr Gln Cys Lys Val Cys Cys Ala Leu Leu Ile Ser Glu Ser Gln Lys  
 85 90 95  
 Leu Ala His Tyr Gln Ser Lys Lys His Ala Asn Lys Val Lys Arg Tyr  
 100 105 110  
 Leu Ala Ile His Gly Met Glu Thr Leu Lys Gly Glu Thr Lys Lys Leu  
 115 120 125  
 Asp Ser Asp Gln Lys Ser Ser Arg Ser Lys Asp Lys Asn Gln Cys Cys  
 130 135 140  
 Pro Ile Cys Asn Met Thr Phe Ser Ser Pro Val Val Ala Gln Ser His  
 145 150 155 160  
 Tyr Leu Gly Lys Thr His Ala Lys Asn Leu Lys Leu Lys Gln Gln Ser  
 165 170 175  
 Thr Lys Val Glu Ala Leu His Gln Asn Arg Glu Met Ile Asp Pro Asp  
 180 185 190  
 Lys Phe Cys Ser Leu Cys His Ala Thr Phe Asn Asp Pro Val Met Ala  
 195 200 205  
 Gln Gln His Tyr Val Gly Lys Lys His Arg Lys Gln Glu Thr Lys Leu  
 210 215 220  
 Lys Leu Met Ala Arg Tyr Gly Arg Leu Ala Asp Pro Ala Val Thr Asp  
 225 230 235 240  
 Phe Pro Ala Gly Lys Gly Tyr Pro Cys Lys Thr Cys Lys Ile Val Leu  
 245 250 255  
 Asn Ser Ile Glu Gln Tyr Gln Ala His Val Ser Gly Phe Lys His Lys  
 260 265 270  
 Asn Gln Ser Pro Lys Thr Val Ala Ser Ser Leu Gly Gln Ile Pro Met  
 275 280 285  
 Gln Arg Gln Pro Ile Gln Lys Asp Ser Thr Thr Leu Glu Asp  
 290 295 300

<210> 3449  
 <211> 877

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3449

```

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60
ccccccggcg ccccggtctt gccgctgcac aattcctccg tgactgccaa ctcccagtcc
120
ccggcccttc tggccggcac caaccccggtt gctgtcgtcg cggatggagg cagttgcccc
180
gcacactacc cgggtgcacga gtgcgtcttc aagggggatg tgaggagact ctctctctc
240
atccgcacgc acaatatcgg gcagaaagat aatcacggaa atactccttt acaccttgct
300
gtgatgttag gaaataaaga atgtgccccat ttacttttgg ctcaaatgc tccagtcaag
360
gtgaaaaatg ctccgggatg gagccctctg gcggaagcca tcagctatgg agataggcag
420
atgattacag ctcttttgag gaagcttaag cagcaatcca gggaaagtgt tgaagaaaaa
480
cgacctcgat tattaagaag cctgaaagag ctaggtgact tttatctaga acttcactgg
540
gattttcaaa gctgggtgcc ttacttttcc cgaattctgc cttccgatgc atgtaaaata
600
tacaacaag gtatcaatat caggcttgac acaactctca tagactttac tgacatgaag
660
tgccaacgag gggatctaag cttcattttc aatggggatg cggcgccctc tgaatctttt
720
gtagtattag acaatgaaca aaaagtttat cagcgaatac atcatgaggc tcacatccca
780
ggaatcagag atggaaacag aagaagaggt ggatatttta atgagcagtg atatttactc
840
tgcaacttta tcaacaaaat caatttcttt caccgct
877

```

&lt;210&gt; 3450

&lt;211&gt; 276

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3450

```

Xaa Ile Phe Ser Asn His His His Arg Leu Gln Leu Lys Ala Ala Pro
1           5           10           15
Ala Ser Ser Asn Pro Pro Gly Ala Pro Ala Leu Pro Leu His Asn Ser
20           25           30
Ser Val Thr Ala Asn Ser Gln Ser Pro Ala Leu Leu Ala Gly Thr Asn
35           40           45
Pro Val Ala Val Val Ala Asp Gly Gly Ser Cys Pro Ala His Tyr Pro
50           55           60
Val His Glu Cys Val Phe Lys Gly Asp Val Arg Arg Leu Ser Ser Leu
65           70           75           80
Ile Arg Thr His Asn Ile Gly Gln Lys Asp Asn His Gly Asn Thr Pro
85           90           95
Leu His Leu Ala Val Met Leu Gly Asn Lys Glu Cys Ala His Leu Leu

```

```

      100      105      110
Leu Ala His Asn Ala Pro Val Lys Val Lys Asn Ala Gln Gly Trp Ser
      115      120      125
Pro Leu Ala Glu Ala Ile Ser Tyr Gly Asp Arg Gln Met Ile Thr Ala
      130      135      140
Leu Leu Arg Lys Leu Lys Gln Gln Ser Arg Glu Ser Val Glu Glu Lys
      145      150      155      160
Arg Pro Arg Leu Leu Lys Ala Leu Lys Glu Leu Gly Asp Phe Tyr Leu
      165      170      175
Glu Leu His Trp Asp Phe Gln Ser Trp Val Pro Leu Leu Ser Arg Ile
      180      185      190
Leu Pro Ser Asp Ala Cys Lys Ile Tyr Lys Gln Gly Ile Asn Ile Arg
      195      200      205
Leu Asp Thr Thr Leu Ile Asp Phe Thr Asp Met Lys Cys Gln Arg Gly
      210      215      220
Asp Leu Ser Phe Ile Phe Asn Gly Asp Ala Ala Pro Ser Glu Ser Phe
      225      230      235      240
Val Val Leu Asp Asn Glu Gln Lys Val Tyr Gln Arg Ile His His Glu
      245      250      255
Ala His Ile Pro Gly Ile Arg Asp Gly Asn Arg Arg Arg Gly Gly Tyr
      260      265      270
Phe Asn Glu Gln
      275

```

&lt;210&gt; 3451

&lt;211&gt; 595

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3451

```

gcatttttac agtttgata tccattttc aaggcttcag tggggctgct tagacaaaaa
60
cgatcttcag ggtttacaga atgggtcctc cttaagctct ctgagccccc gccgtaggta
120
gaaatattca gtaagtagtg ccctgccatt gcaggtttgg atgtccttct gccagcaaaa
180
cccagcatga acctctggct tgtggagatg tcttcagct ggaaacctga gtgagcgaag
240
ttgaactgtg agggcggcac aactgagaga agattctgcc tccgaacct ctgaatgaga
300
gtctgaagga tctgatcttg ggttgcttta cttagtcctt cgtggtattg gtgtgtgtca
360
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420
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480
tcattaactt cctctctggt gctattttct gttgtgttgg tagctatgag cgctcccatc
540
cccccttctt cttttgcagg caggggaacc gcttccattt caactttggg gagag
595

```

&lt;210&gt; 3452

&lt;211&gt; 192

&lt;212&gt; PRT



&lt;213&gt; Homo sapiens

&lt;400&gt; 3452

```

Met Glu Ala Val Pro Leu Pro Ala Lys Glu Glu Arg Gly Met Gly Ala
 1              5              10              15
Leu Ile Ala Thr Asn Thr Thr Glu Asn Ser Thr Arg Glu Glu Val Asn
      20              25              30
Glu Arg Gln Ser His Pro Ala Thr Gln Gln Gln Leu Gly Lys Thr Leu
      35              40              45
Gln Ser Lys Gln Leu Pro Gln Val Pro Arg Pro Leu Gln Leu Phe Ser
      50              55              60
Ala Lys Glu Leu Arg Asp Ser Ser Ile Asp Thr His Gln Tyr His Glu
65              70              75              80
Gly Leu Ser Lys Ala Thr Gln Asp Gln Ile Leu Gln Thr Leu Ile Gln
      85              90              95
Arg Val Arg Arg Gln Asn Leu Leu Ser Val Val Pro Pro Ser Gln Phe
      100             105             110
Asn Phe Ala His Ser Gly Phe Gln Leu Glu Asp Ile Ser Thr Ser Gln
      115             120             125
Arg Phe Met Leu Gly Phe Ala Gly Arg Arg Thr Ser Lys Pro Ala Met
      130             135             140
Ala Gly His Tyr Leu Leu Asn Ile Ser Thr Tyr Gly Arg Gly Ser Glu
145             150             155             160
Ser Phe Arg Arg Thr His Ser Val Asn Pro Glu Asp Arg Phe Cys Leu
      165             170             175
Ser Ser Pro Thr Glu Ala Leu Lys Met Gly Tyr Thr Asn Cys Lys Asn
      180             185             190

```

&lt;210&gt; 3453

&lt;211&gt; 477

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3453

```

nnacgcgtga aggggtcccg ccgcggggct ggcgggctga ggggagaaaa gatggcggcg
60
gcggcgccag ctggtgcggc ctccgggctg ccgggtccag tggcacaagg attaaaggaa
120
gcgttagtg atacgtcac cgggataccta tccccagtac aggaggtgcg ggcggctgct
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420
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477

```

&lt;210&gt; 3454

&lt;211&gt; 159

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3454

Xaa Arg Val Lys Gly Pro Gly Arg Gly Ala Gly Gly Leu Arg Gly Glu  
 1 5 10 15  
 Lys Met Ala Ala Ala Ala Ala Ala Gly Ala Ala Ser Gly Leu Pro Gly  
 20 25 30  
 Pro Val Ala Gln Gly Leu Lys Glu Ala Leu Val Asp Thr Leu Thr Gly  
 35 40 45  
 Ile Leu Ser Pro Val Gln Glu Val Arg Ala Ala Ala Glu Glu Gln Ile  
 50 55 60  
 Lys Val Leu Glu Val Thr Glu Glu Phe Gly Val His Leu Ala Glu Leu  
 65 70 75 80  
 Thr Val Asp Pro Gln Gly Ala Leu Ala Ile Arg Gln Leu Ala Ser Val  
 85 90 95  
 Ile Leu Lys Gln Tyr Val Glu Thr His Trp Cys Ala Gln Ser Glu Lys  
 100 105 110  
 Phe Arg Pro Pro Glu Thr Thr Glu Arg Ala Lys Ile Val Ile Arg Glu  
 115 120 125  
 Leu Leu Pro Asn Gly Leu Arg Glu Ser Ile Ser Lys Val Arg Ser Ser  
 130 135 140  
 Val Ala Tyr Ala Val Ser Ala Ile Ala His Trp Asp Trp Pro Glu  
 145 150 155

&lt;210&gt; 3455

&lt;211&gt; 4886

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3455

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 cccaggatca cactcactgc accctcaact cagaccgtta cctggcacac tggcctcact  
 120  
 cttgtcggag actgagctat tggcagtgcc ttcagctctg agctcaggca cctcgaacat  
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 tgtttttgtc gttaaggatc ctaaagtgtc gtggggagtg atcacatttt tctcaacatc  
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 gagaagaaac agcagttcag aaacctcaaa gagaaatggt ttctaactca actggccggc  
 420  
 ttccctggcca accgacagaa gaaatacaaa tatgaagagt gtaaagatct cataaaattt  
 480  
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2340

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&lt;210&gt; 3456

&lt;211&gt; 117

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3456

Glu	Ile	Glu	Lys	Lys	Gly	Lys	Gly	Lys	Lys	Arg	Arg	Gly	Arg	Arg	Ser
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Lys	Lys	Gln	Arg	Arg	Arg	Gly	Arg	Lys	Glu	Gly	Glu	Glu	Asp	Gln	Asn
		20						25				30			
Pro	Pro	Cys	Pro	Arg	Leu	Asn	Gly	Val	Leu	Met	Glu	Val	Glu	Glu	Pro
		35					40					45			
Glu	Val	Leu	Gln	Asp	Ser	Leu	Asp	Arg	Cys	Tyr	Ser	Thr	Pro	Ser	Met
	50					55					60				
Tyr	Phe	Glu	Leu	Pro	Asp	Ser	Phe	Gln	His	Tyr	Arg	Ser	Val	Phe	Tyr
65					70					75				80	
Ser	Phe	Glu	Glu	Glu	His	Ile	Ser	Phe	Ala	Leu	Tyr	Val	Asp	Asn	Arg
			85					90					95		
Phe	Phe	Thr	Leu	Thr	Val	Thr	Ser	Leu	His	Leu	Val	Phe	Gln	Met	Gly
			100					105					110		
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<210> 3457  
 <211> 646  
 <212> DNA  
 <213> Homo sapiens

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 420  
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 480  
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 540  
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<210> 3458  
 <211> 61  
 <212> PRT  
 <213> Homo sapiens

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 Arg Cys Val Xaa Val Pro Gly Cys Val Cys Ala Cys Val Cys Val Asp  
 20 25 30  
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 35 40 45  
 Leu Cys Xaa Cys Thr Cys Thr Gln Ala Xaa Ala Gly Lys  
 50 55 60

<210> 3459  
 <211> 592  
 <212> DNA  
 <213> Homo sapiens

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 240  
 gacctgcctt ccggccctgc caggattcca gtccctgcct gtcacccca gcttccaggc  
 300  
 ccttccctgt gtgcagctc agtttgctg ctgcagaata agcaccacgc tccctcgtgg  
 360  
 gcagaggcac cggcagactc accacgcgcc ctgcaggcat gtcctgtgct gtgccaggca  
 420  
 ggccccggcc acgtccctgc ccccgagct ggccttcagc ggggacagtg gtcagcactg  
 480  
 aagacagtca tacctgcccg gccggcactg cctgtctcag cacggggaca atttgaactt  
 540  
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<210> 3460

<211> 115

<212> PRT

<213> Homo sapiens

<400> 3460

Met	Gly	Pro	Ser	Gly	Pro	Ala	Ala	Thr	Pro	Thr	Thr	Trp	Asp	Leu	Pro
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Ser	Gly	Pro	Ala	Arg	Ile	Pro	Val	Leu	Pro	Cys	Ser	Pro	Gln	Leu	Pro
			20					25					30		
Gly	Pro	Ser	Leu	Cys	Ala	Ala	Ser	Val	Cys	Leu	Leu	Gln	Asn	Lys	His
			35				40					45			
His	Ala	Pro	Ser	Trp	Ala	Glu	Ala	Pro	Ala	Asp	Ser	Pro	Arg	Ala	Leu
	50					55				60					
Gln	Ala	Cys	Pro	Val	Leu	Cys	Gln	Ala	Gly	Pro	Gly	His	Val	Pro	Ala
65				70					75					80	
Pro	Gly	Ala	Gly	Leu	Gln	Arg	Gly	Gln	Trp	Ser	Ala	Leu	Lys	Thr	Val
			85					90					95		
Ile	Pro	Ala	Arg	Pro	Ala	Leu	Pro	Cys	Ser	Ala	Arg	Gly	Gln	Phe	Glu
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Leu	Lys	Leu													
			115												

<210> 3461

<211> 474

<212> DNA

<213> Homo sapiens

<400> 3461

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 agctttgcgt ccgtggcaga tgtcagctcc agtcgcagcc gcaccttcg gatggccctg  
 180

ctggaagcca gcatcgggggt ggctgggatg ctggcaagcc tcctcggggg cactgggctc  
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 300  
 ctctatgcag ctttctgctt tggtagagacc ttaaaggagc caaagtccac ccggctcttc  
 360  
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 420  
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 474

<210> 3462

<211> 101

<212> PRT

<213> Homo sapiens

<400> 3462

Met	Ala	Leu	Leu	Glu	Ala	Ser	Ile	Gly	Val	Ala	Gly	Met	Leu	Ala	Ser
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Leu	Leu	Gly	Gly	His	Trp	Leu	Arg	Ala	Gln	Gly	Tyr	Ala	Asn	Pro	Phe
		20						25					30		
Trp	Leu	Ala	Leu	Ala	Leu	Leu	Ile	Ala	Met	Thr	Leu	Tyr	Ala	Ala	Phe
		35					40					45			
Cys	Phe	Gly	Glu	Thr	Leu	Lys	Glu	Pro	Lys	Ser	Thr	Arg	Leu	Phe	Thr
	50					55					60				
Phe	Arg	His	His	Arg	Ser	Ile	Val	Gln	Leu	Tyr	Val	Ala	Pro	Ala	Pro
65					70					75				80	
Glu	Lys	Ser	Arg	Lys	His	Leu	Ala	Leu	Tyr	Ser	Leu	Ala	Ile	Phe	Val
				85					90					95	
Val	Ile	Thr	Val	His											
				100											

<210> 3463

<211> 1734

<212> DNA

<213> Homo sapiens

<400> 3463

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 360  
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 420  
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 480



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&lt;210&gt; 3464

&lt;211&gt; 434

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3464

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Leu	Glu	Asp	Pro	Ala	Val	Pro	Arg	Leu	Thr	Ala	Ala	Leu	Pro	Ala	Ala
			20					25				30			
Glu	Leu	Pro	Glu	Arg	Arg	Arg	Arg	Gln	Gln	Arg	Gln	Gly	Lys	His	His

35	40	45
Pro Asn Tyr Leu Met Ala	Asn Glu Arg Met Asn	Leu Met Asn Met Ala
50	55	60
Lys Leu Ser Ile Lys Gly	Leu Ile Glu Ser Ala	Leu Asn Leu Gly Arg
65	70	75
Thr Leu Asp Ser Asp Tyr	Ala Pro Leu Gln Gln	Phe Phe Val Val Met
85	90	95
Glu His Cys Leu Lys His	Gly Leu Lys Ala Lys	Lys Thr Phe Leu Gly
100	105	110
Gln Asn Lys Ser Phe Trp	Gly Pro Leu Glu Leu	Val Glu Lys Leu Val
115	120	125
Pro Glu Ala Ala Glu Ile	Thr Ala Ser Val Lys	Asp Leu Pro Gly Leu
130	135	140
Lys Thr Pro Val Gly Arg	Gly Arg Ala Trp Leu	Arg Leu Ala Leu Met
145	150	155
Gln Lys Lys Leu Ser Glu	Tyr Met Lys Ala Leu	Ile Asn Lys Lys Glu
165	170	175
Leu Leu Ser Glu Phe Tyr	Glu Pro Asn Ala Leu	Met Met Glu Glu Glu
180	185	190
Gly Ala Ile Ile Ala Gly	Leu Leu Val Gly Leu	Asn Val Ile Asp Ala
195	200	205
Asn Phe Cys Met Lys Gly	Glu Asp Leu Asp Ser	Gln Val Gly Val Ile
210	215	220
Asp Phe Ser Met Tyr Leu	Lys Asp Gly Asn Ser	Ser Lys Gly Thr Glu
225	230	235
Gly Asp Gly Gln Ile Thr	Ala Ile Leu Asp Gln	Lys Asn Tyr Val Glu
245	250	255
Glu Leu Asn Arg His Leu	Asn Ala Thr Val Asn	Asn Leu Gln Ala Lys
260	265	270
Val Asp Ala Leu Glu Lys	Ser Asn Thr Lys Leu	Thr Glu Glu Leu Ala
275	280	285
Val Ala Asn Asn Arg Ile	Ile Thr Leu Gln Glu	Glu Met Glu Arg Val
290	295	300
Lys Glu Glu Ser Ser Tyr	Ile Leu Glu Ser Asn	Arg Lys Gly Pro Lys
305	310	315
Gln Asp Arg Thr Ala Glu	Gly Gln Ala Leu Ser	Glu Ala Arg Lys His
325	330	335
Leu Lys Glu Glu Thr Gln	Leu Arg Leu Asp Val	Glu Lys Glu Leu Glu
340	345	350
Met Gln Ile Ser Met Arg	Gln Glu Met Glu Leu	Ala Met Lys Met Leu
355	360	365
Glu Lys Asp Val Cys Glu	Lys Gln Asp Ala Leu	Val Ser Leu Arg Gln
370	375	380
Gln Leu Asp Asp Leu Arg	Ala Leu Lys His Glu	Leu Ala Phe Lys Leu
385	390	395
Gln Ser Ser Asp Leu Gly	Val Lys Gln Lys Ser	Glu Leu Asn Ser Arg
405	410	415
Leu Glu Glu Lys Thr Asn	Gln Met Ala Ala Thr	Ile Lys Gln Leu Glu
420	425	430
Gln Arg		

&lt;210&gt; 3465

&lt;211&gt; 2904

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3465

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&lt;210&gt; 3466

&lt;211&gt; 315

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3466

```

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Ala Leu Ile Arg Ser Pro Ser Leu Ala Lys Gln Ser Trp Gly Gly Gly
          20           25           30
Gly Arg His Arg Lys Leu Pro Glu Asn Trp Thr Asp Thr Arg Glu Thr
          35           40           45
Leu Leu Glu Gly Met Leu Phe Ser Leu Lys Tyr Leu Gly Met Thr Leu
          50           55           60
Val Glu Gln Pro Lys Gly Glu Glu Leu Ser Ala Ala Ala Ile Lys Arg
65           70           75           80
Ile Val Ala Thr Ala Lys Ala Ser Gly Lys Lys Leu Gln Lys Val Thr
          85           90           95
Leu Lys Val Ser Pro Arg Gly Ile Ile Leu Thr Asp Asn Leu Thr Asn
          100          105          110
Gln Leu Ile Glu Asn Val Ser Ile Tyr Arg Ile Ser Tyr Cys Thr Ala
          115          120          125
Asp Lys Met His Asp Lys Val Phe Ala Tyr Ile Ala Gln Ser Gln His
          130          135          140
Asn Gln Ser Leu Glu Cys His Ala Phe Leu Cys Thr Lys Arg Lys Met
145          150          155          160
Ala Gln Ala Val Thr Leu Thr Val Ala Gln Ala Phe Lys Val Ala Phe
          165          170          175
Glu Phe Trp Gln Val Ser Lys Glu Glu Lys Glu Lys Arg Asp Lys Ala
          180          185          190
Ser Gln Glu Gly Gly Asp Val Leu Gly Ala Arg Gln Asp Cys Thr Pro
          195          200          205
Pro Leu Lys Ser Leu Val Ala Thr Gly Asn Leu Leu Asp Leu Glu Glu
          210          215          220
Thr Ala Lys Ala Pro Leu Ser Thr Val Ser Ala Asn Thr Thr Asn Met
225          230          235          240
Asp Glu Val Pro Arg Pro Gln Ala Leu Ser Gly Ser Ser Val Val Trp
          245          250          255
Glu Leu Asp Asp Gly Leu Asp Glu Ala Phe Ser Arg Leu Ala Gln Ser
          260          265          270
Arg Thr Asn Pro Gln Val Leu Asp Thr Gly Leu Thr Ala Gln Asp Met
          275          280          285
His Tyr Ala Gln Cys Leu Ser Pro Val Asp Trp Asp Lys Pro Asp Ser
          290          295          300
Ser Gly Thr Glu Gln Asp Asp Leu Phe Ser Phe
305          310          315

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&lt;210&gt; 3467

&lt;211&gt; 638

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3467

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60
acatttgcaa aataaaaaag ttgtggagga ggaagaaaaa caaaaaccag gatgcactga
120
ggctctgaggt gaaggtccta ggagcatcag ttctctgttg ggatcaaggt tgctgggaca
180

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gagcttgatc cctgtcaact gctaaaacaa tccaggacaa tccaatagta gagctgaatt  
 240  
 ttgattacct tggtcctgag cttcacagcc ctttggcaga ggaaatcctg tgacactgag  
 300  
 gtgtaaccac aagactggcc caaactgacc ctattctgtt ggtaacagga ggtatagcag  
 360  
 agccaaaact gaaagtcatg taaccgggac atgcacaaag gaggaaaatc ataactcggg  
 420  
 accaacgttt cctccctgtg gagccaagaa gacagggaca tgaccggagc ttgaggggag  
 480  
 gaacgctttc agaagggag ggtccattat cctggaagat ctggtgctga aacctgccat  
 540  
 tccacacctt accataaatg gccaaagttta aagccctcct attgaaacct gcccgccagc  
 600  
 acttctgtgt gccaacctgt cctccctaac ccgtcgac  
 638

&lt;210&gt; 3468

&lt;211&gt; 88

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3468

Met	Ser	Leu	Ser	Ser	Trp	Leu	His	Arg	Glu	Glu	Thr	Leu	Val	Pro	Ser
1				5					10				15		
Tyr	Asp	Phe	Pro	Pro	Leu	Cys	Met	Ser	Gly	Leu	His	Asp	Phe	Gln	Phe
			20					25				30			
Trp	Leu	Cys	Tyr	Thr	Ser	Cys	Tyr	Gln	Gln	Asn	Arg	Val	Ser	Leu	Gly
		35				40						45			
Gln	Ser	Cys	Gly	Tyr	Thr	Ser	Val	Ser	Gln	Asp	Phe	Leu	Cys	Gln	Arg
	50					55				60					
Ala	Val	Lys	Leu	Arg	Thr	Lys	Val	Ile	Lys	Ile	Gln	Leu	Tyr	Tyr	Trp
65					70				75					80	
Ile	Val	Leu	Asp	Cys	Phe	Ser	Ser								
					85										

&lt;210&gt; 3469

&lt;211&gt; 1710

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3469

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 60  
 ccgctgctgt gggccccggc tgcggtccgg gccggcccag atgaagacct tagccaccgg  
 120  
 aacaaagaac cgccggcgcc ggcccagcag ctgcagccgc agcctgtggc tgtgcagggc  
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 300  
 gttattattg tatctgaatt gggtgataag acatttttta tagcagccat catggcaatg  
 360

cgctataacc gcctgaccgt gctggctggt gcaatgcttg ccttgggact aatgacatgc  
420  
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480  
tcaactgtat tatttgccat ttttggcatt agaatgcttc gggaaggctt aaagatgagc  
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660  
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960  
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tgtaaatatg gtcttcattt ttcttttggg gcagaaccgt tgtgcagtgg ggtctaccat  
1260  
gcaattttct ttcagcactg accccttttt aaggaatata aattttctcc ttcactactt  
1320  
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1380  
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1440  
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1620  
attcatattt tttctatatt gaataaaca tgtaacatag ataacaatat aaataaaagt  
1680  
ggtatgacca gtgaaaaaaaa aaaaaaaaaa  
1710

&lt;210&gt; 3470

&lt;211&gt; 322

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3470

Ala Ala Ala Pro Gly Asn Gly Arg Ala Ser Ala Pro Arg Leu Leu Leu

1                      5                      10                      15  
 Leu Phe Leu Val Pro Leu Leu Trp Ala Pro Ala Ala Val Arg Ala Gly  
                     20                      25                      30  
 Pro Asp Glu Asp Leu Ser His Arg Asn Lys Glu Pro Pro Ala Pro Ala  
                     35                      40                      45  
 Gln Gln Leu Gln Pro Gln Pro Val Ala Val Gln Gly Pro Glu Pro Ala  
                     50                      55                      60  
 Arg Val Glu Lys Ile Phe Thr Pro Ala Ala Pro Val His Thr Asn Lys  
 65                      70                      75                      80  
 Glu Asp Pro Ala Thr Gln Thr Asn Leu Gly Phe Ile His Ala Phe Val  
                     85                      90                      95  
 Ala Ala Ile Ser Val Ile Ile Val Ser Glu Leu Gly Asp Lys Thr Phe  
                     100                      105                      110  
 Phe Ile Ala Ala Ile Met Ala Met Arg Tyr Asn Arg Leu Thr Val Leu  
                     115                      120                      125  
 Ala Gly Ala Met Leu Ala Leu Gly Leu Met Thr Cys Leu Ser Val Leu  
                     130                      135                      140  
 Phe Gly Tyr Ala Thr Thr Val Ile Pro Arg Val Tyr Thr Tyr Tyr Val  
 145                      150                      155                      160  
 Ser Thr Val Leu Phe Ala Ile Phe Gly Ile Arg Met Leu Arg Glu Gly  
                     165                      170                      175  
 Leu Lys Met Ser Pro Asp Glu Gly Gln Glu Glu Leu Glu Glu Val Gln  
                     180                      185                      190  
 Ala Glu Leu Lys Lys Lys Asp Glu Glu Phe Gln Arg Thr Lys Leu Leu  
                     195                      200                      205  
 Asn Gly Pro Gly Asp Val Glu Thr Gly Thr Ser Ile Thr Val Pro Gln  
                     210                      215                      220  
 Lys Lys Trp Leu His Phe Ile Ser Pro Ile Phe Val Gln Ala Leu Thr  
 225                      230                      235                      240  
 Leu Thr Phe Leu Ala Glu Trp Gly Asp Arg Ser Gln Leu Thr Thr Ile  
                     245                      250                      255  
 Val Leu Ala Ala Arg Glu Asp Pro Tyr Gly Val Ala Val Gly Gly Thr  
                     260                      265                      270  
 Val Gly His Cys Leu Cys Thr Gly Leu Ala Val Ile Gly Gly Arg Met  
                     275                      280                      285  
 Ile Ala Gln Lys Ile Ser Val Arg Thr Val Thr Ile Ile Gly Gly Ile  
                     290                      295                      300  
 Val Phe Leu Ala Phe Ala Phe Ser Ala Leu Phe Ile Ser Pro Asp Ser  
 305                      310                      315                      320  
 Gly Phe

&lt;210&gt; 3471

&lt;211&gt; 2335

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3471

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120

gagaagtgcc gtatcgacac ggagatcctg ccctccctgt tcatgcgctg caccaccgac  
180



ctcaaccgca aggacaagtt ccccgccatc acccacctca agttcctggc cggggacatg  
240  
tcggagcagg tgcttttgtg cgcgtccagc cagaccagca gcatcgtgga gtgctgggtcc  
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360  
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480  
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1800

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 1980  
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 2335

<210> 3472

<211> 631

<212> PRT

<213> Homo sapiens

<400> 3472

Gly	Arg	Val	Ala	Leu	Ala	Asp	Ile	Ala	Phe	Thr	Gly	Gly	Gly	Asn	Ile
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Val	Val	Ala	Thr	Ala	Asp	Gly	Ser	Ser	Ala	Ser	Pro	Val	Gln	Phe	Tyr
			20				25						30		
Lys	Val	Cys	Val	Ser	Val	Val	Ser	Glu	Lys	Cys	Arg	Ile	Asp	Thr	Glu
		35					40					45			
Ile	Leu	Pro	Ser	Leu	Phe	Met	Arg	Cys	Thr	Thr	Asp	Leu	Asn	Arg	Lys
	50					55				60					
Asp	Lys	Phe	Pro	Ala	Ile	Thr	His	Leu	Lys	Phe	Leu	Ala	Arg	Asp	Met
65					70					75				80	
Ser	Glu	Gln	Val	Leu	Leu	Cys	Ala	Ser	Ser	Gln	Thr	Ser	Ser	Ile	Val
			85					90					95		
Glu	Cys	Trp	Ser	Leu	Arg	Lys	Glu	Gly	Leu	Pro	Val	Asn	Asn	Ile	Phe
			100					105					110		
Gln	Gln	Ile	Ser	Pro	Val	Val	Gly	Asp	Lys	Gln	Pro	Thr	Ile	Leu	Lys
		115					120					125			
Trp	Arg	Ile	Leu	Ser	Ala	Thr	Asn	Asp	Leu	Asp	Arg	Val	Ser	Ala	Val
	130					135					140				
Ala	Leu	Pro	Lys	Leu	Pro	Ile	Ser	Leu	Thr	Asn	Thr	Asp	Leu	Lys	Val
145					150					155				160	
Ala	Ser	Asp	Thr	Gln	Phe	Tyr	Pro	Gly	Leu	Gly	Leu	Ala	Leu	Ala	Phe
			165					170						175	
His	Asp	Gly	Ser	Val	His	Ile	Val	His	Arg	Leu	Ser	Leu	Gln	Thr	Met
			180					185					190		
Ala	Val	Phe	Tyr	Ser	Ser	Ala	Ala	Pro	Arg	Pro	Val	Asp	Glu	Pro	Ala
		195					200					205			
Met	Lys	Arg	Pro	Arg	Thr	Ala	Gly	Pro	Ala	Val	His	Leu	Lys	Ala	Met
	210					215					220				
Gln	Leu	Ser	Trp	Thr	Ser	Leu	Ala	Leu	Val	Gly	Ile	Asp	Ser	His	Gly

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225          230          235          240
Lys Leu Ser Val Leu Arg Leu Ser Pro Ser Met Gly His Pro Leu Glu
          245          250          255
Val Gly Leu Ala Leu Arg His Leu Leu Phe Leu Leu Glu Tyr Cys Met
          260          265          270
Val Thr Gly Tyr Asp Trp Trp Asp Ile Leu Leu His Val Gln Pro Ser
          275          280          285
Met Val Gln Ser Leu Val Glu Lys Leu His Glu Glu Tyr Thr Arg Gln
          290          295          300
Thr Ala Ala Leu Gln Gln Val Leu Ser Thr Arg Ile Leu Ala Met Lys
305          310          315          320
Ala Ser Leu Cys Lys Leu Ser Pro Cys Thr Val Thr Arg Val Cys Asp
          325          330          335
Tyr His Thr Lys Leu Phe Leu Ile Ala Ile Ser Ser Thr Leu Lys Ser
          340          345          350
Leu Leu Arg Pro His Phe Leu Asn Thr Pro Asp Lys Ser Pro Gly Asp
          355          360          365
Arg Leu Thr Glu Ile Cys Thr Lys Ile Thr Asp Val Asp Ile Asp Lys
          370          375          380
Val Met Ile Asn Leu Lys Thr Glu Glu Phe Val Leu Asp Met Asn Thr
385          390          395          400
Leu Gln Ala Leu Gln Gln Leu Leu Gln Trp Val Gly Asp Phe Val Leu
          405          410          415
Tyr Leu Leu Ala Ser Leu Pro Asn Gln Gly Ser Leu Leu Arg Pro Gly
          420          425          430
His Ser Phe Leu Arg Asp Gly Thr Ser Leu Gly Met Leu Arg Glu Leu
          435          440          445
Met Val Val Ile Arg Ile Trp Gly Leu Leu Lys Pro Ser Cys Leu Pro
          450          455          460
Val Tyr Thr Ala Thr Ser Asp Thr Gln Asp Ser Met Ser Leu Leu Phe
465          470          475          480
Arg Leu Leu Thr Lys Leu Trp Ile Cys Cys Arg Asp Glu Gly Pro Ala
          485          490          495
Ser Glu Pro Asp Glu Ala Leu Val Asp Glu Cys Cys Leu Leu Pro Ser
          500          505          510
Gln Leu Leu Ile Pro Ser Leu Asp Trp Leu Pro Ala Ser Asp Gly Leu
          515          520          525
Val Ser Arg Leu Gln Pro Lys Gln Pro Leu Arg Leu Gln Phe Gly Arg
          530          535          540
Ala Pro Thr Leu Pro Gly Ser Ala Ala Thr Leu Gln Leu Asp Gly Leu
545          550          555          560
Ala Arg Ala Pro Gly Gln Pro Lys Ile Asp His Leu Arg Arg Leu His
          565          570          575
Leu Gly Ala Cys Pro Thr Glu Glu Cys Lys Ala Cys Thr Arg Cys Gly
          580          585          590
Cys Val Thr Met Leu Lys Ser Pro Asn Arg Thr Thr Ala Val Lys Gln
          595          600          605
Trp Glu Gln Arg Trp Ile Lys Asn Cys Leu Cys Gly Gly Leu Trp Trp
          610          615          620
Arg Val Pro Leu Ser Tyr Pro
625          630

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&lt;210&gt; 3473

&lt;211&gt; 1660

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3473

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ctggattttc acaaaggggt ctgaaccttg gctgttggcg agggcaaagt gggcgtggcg  
120  
gcgccatgcc cgggccggac tgagtgcgcg cgggcgagaa tggcgtacat ccagttggaa  
180  
ccattaaacg agggttttct ttctagaatc tctggtctgc tgctgtgcag atggacctgc  
240  
cggcactgct gtcagaagtg ctacgagtec agctgttgcc agtcaagtga ggatgaagtt  
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360  
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540  
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600  
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660  
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720  
ctgcacttca gcactcagta cgacctgctg cacaaccacc tcaccgtgcg cgtgatcgag  
780  
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1380  
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1440  
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1500

cgcacagccg tggagcagtg gcatagcctg aggtcccag ctgagtgtga ccgcgtgtct.  
 1560  
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 1660

<210> 3474

<211> 474

<212> PRT

<213> Homo sapiens

<400> 3474

Met	Ala	Tyr	Ile	Gln	Leu	Glu	Pro	Leu	Asn	Glu	Gly	Phe	Leu	Ser	Arg
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Ile	Ser	Gly	Leu	Leu	Leu	Cys	Arg	Trp	Thr	Cys	Arg	His	Cys	Cys	Gln
			20					25					30		
Lys	Cys	Tyr	Glu	Ser	Ser	Cys	Cys	Gln	Ser	Ser	Glu	Asp	Glu	Val	Glu
			35				40					45			
Ile	Leu	Gly	Pro	Phe	Pro	Ala	Gln	Thr	Pro	Pro	Trp	Leu	Met	Ala	Ser
	50					55					60				
Arg	Ser	Ser	Asp	Lys	Asp	Gly	Asp	Ser	Val	His	Thr	Ala	Ser	Glu	Val
65				70						75				80	
Pro	Leu	Thr	Pro	Arg	Thr	Asn	Ser	Pro	Asp	Gly	Arg	Arg	Ser	Ser	Ser
				85					90					95	
Asp	Thr	Ser	Lys	Ser	Thr	Tyr	Ser	Leu	Thr	Arg	Arg	Ile	Ser	Ser	Leu
			100					105					110		
Glu	Ser	Arg	Arg	Pro	Ser	Ser	Pro	Leu	Ile	Asp	Ile	Lys	Pro	Ile	Glu
			115				120					125			
Phe	Gly	Val	Leu	Ser	Ala	Lys	Lys	Glu	Pro	Ile	Gln	Pro	Ser	Val	Leu
	130					135					140				
Arg	Arg	Thr	Tyr	Asn	Pro	Asp	Asp	Tyr	Phe	Arg	Lys	Phe	Glu	Pro	His
145				150						155				160	
Leu	Tyr	Ser	Leu	Asp	Ser	Asn	Ser	Asp	Asp	Val	Asp	Ser	Leu	Thr	Asp
				165						170				175	
Glu	Glu	Ile	Leu	Ser	Lys	Tyr	Gln	Leu	Gly	Met	Leu	His	Phe	Ser	Thr
			180					185					190		
Gln	Tyr	Asp	Leu	Leu	His	Asn	His	Leu	Thr	Val	Arg	Val	Ile	Glu	Ala
		195				200						205			
Arg	Asp	Leu	Pro	Pro	Pro	Ile	Ser	His	Asp	Gly	Ser	Arg	Gln	Asp	Met
	210					215					220				
Ala	His	Ser	Asn	Pro	Tyr	Val	Lys	Ile	Cys	Leu	Leu	Pro	Asp	Gln	Lys
225				230						235				240	
Asn	Ser	Lys	Gln	Thr	Gly	Val	Lys	Arg	Lys	Thr	Gln	Lys	Pro	Val	Phe
			245						250					255	
Glu	Glu	Arg	Tyr	Thr	Phe	Glu	Ile	Pro	Phe	Leu	Glu	Ala	Gln	Arg	Arg
			260					265					270		
Thr	Leu	Leu	Leu	Thr	Val	Val	Asp	Phe	Asp	Lys	Phe	Ser	Arg	His	Cys
			275				280					285			
Val	Ile	Gly	Lys	Val	Ser	Val	Pro	Leu	Cys	Glu	Val	Asp	Leu	Val	Lys
	290					295					300				
Gly	Gly	His	Trp	Trp	Lys	Ala	Leu	Ile	Pro	Ser	Ser	Gln	Asn	Glu	Val
305				310						315				320	
Glu	Leu	Gly	Glu	Leu	Leu	Leu	Ser	Leu	Asn	Tyr	Leu	Pro	Ser	Ala	Gly

```

          325          330          335
Arg Leu Asn Val Asp Val Ile Arg Ala Lys Gln Leu Leu Gln Thr Asp
          340          345          350
Val Ser Gln Gly Ser Asp Pro Phe Val Lys Ile Gln Leu Val His Gly
          355          360          365
Leu Lys Leu Val Lys Thr Lys Lys Thr Ser Phe Leu Arg Gly Thr Ile
          370          375          380
Asp Pro Phe Tyr Asn Glu Ser Phe Ser Phe Lys Val Pro Gln Glu Glu
          385          390          395          400
Leu Glu Asn Ala Ser Leu Val Phe Thr Val Phe Gly His Asn Met Lys
          405          410          415
Ser Ser Asn Asp Phe Ile Gly Arg Ile Val Ile Gly Gln Tyr Ser Ser
          420          425          430
Gly Pro Ser Glu Thr Asn His Trp Arg Arg Met Leu Asn Thr His Arg
          435          440          445
Thr Ala Val Glu Gln Trp His Ser Leu Arg Ser Arg Ala Glu Cys Asp
          450          455          460
Arg Val Ser Pro Ala Ser Leu Glu Val Thr
          465          470

```

&lt;210&gt; 3475

&lt;211&gt; 514

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3475

```

acgcgtctgg agggctggtt cttctgcacg cccgcccga agctgctctg gctggtgctg
60
cagcccttct tctactcact acggccgctc tgcgtccacc ccaaggccgt gacccgcatg
120
gaggtgctca acacgctggt gcagctggcg gccgacctgg ccatctttgc cctttggggg
180
ctcaagcccc tgggtctacct gctggccagc tccttctctg gcctgggcct gcaccccatc
240
tcggggcact tcgtggccga gcactacatg ttcttcaagg gccacgagac ctactcctac
300
tatgggcctc tcaactggat caccttcaat gtgggctacc acgtggagca ccacgacttc
360
cccagcatcc cgggctacaa cctgccgctg gtgcggaaga tcgcgcccga gtactacgac
420
cacctgccgc agcaccactc ctgggtgaag gtgctctggg attttgtgtt tgaggactcc
480
ctggggccct atgccagggt gaagcgggtg taca
514

```

&lt;210&gt; 3476

&lt;211&gt; 171

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3476

```

Thr Arg Leu Glu Gly Trp Phe Phe Cys Thr Pro Ala Arg Lys Leu Leu
1          5          10          15
Trp Leu Val Leu Gln Pro Phe Phe Tyr Ser Leu Arg Pro Leu Cys Val

```

```

      20      25      30
His Pro Lys Ala Val Thr Arg Met Glu Val Leu Asn Thr Leu Val Gln
      35      40      45
Leu Ala Ala Asp Leu Ala Ile Phe Ala Leu Trp Gly Leu Lys Pro Val
      50      55      60
Val Tyr Leu Leu Ala Ser Ser Phe Leu Gly Leu Gly Leu His Pro Ile
      65      70      75      80
Ser Gly His Phe Val Ala Glu His Tyr Met Phe Leu Lys Gly His Glu
      85      90      95
Thr Tyr Ser Tyr Tyr Gly Pro Leu Asn Trp Ile Thr Phe Asn Val Gly
      100      105      110
Tyr His Val Glu His His Asp Phe Pro Ser Ile Pro Gly Tyr Asn Leu
      115      120      125
Pro Leu Val Arg Lys Ile Ala Pro Glu Tyr Tyr Asp His Leu Pro Gln
      130      135      140
His His Ser Trp Val Lys Val Leu Trp Asp Phe Val Phe Glu Asp Ser
      145      150      155      160
Leu Gly Pro Tyr Ala Arg Val Lys Arg Val Tyr
      165      170

```

&lt;210&gt; 3477

&lt;211&gt; 356

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3477

```

gcgcgcctcg gctgcctgcc cggcgggtctc cgggtcctcg tccagaccgg ccaccggagc
60
ttgacctcct gcatcgaccc ttccatggga cttaatgaag agcagaaaga atttcaaaaa
120
gtggcctttg actttgctgc ccgagagatg gctccaaata tggcagagtg ggaccagaag
180
gtaggcggtt ttcttgtgct tagacgttct aacaacagat gtctcaggca gacctttatc
240
tttgtctccc gataatgtaa ttgttaaag tctcctccac ttaccaactc ttactgcaag
300
tgagaatacc ggtagtggat gatttttctc agaaggcatc ctgatcatct tgtaca
356

```

&lt;210&gt; 3478

&lt;211&gt; 116

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3478

```

Met Ile Arg Met Pro Ser Arg Lys Asn His Pro Leu Pro Val Phe Ser
1      5      10      15
Leu Ala Val Arg Val Gly Lys Trp Arg Arg His Leu Thr Ile Thr Leu
      20      25      30
Ser Gly Asp Lys Asp Lys Gly Leu Pro Glu Thr Ser Val Val Arg Thr
      35      40      45
Ser Lys His Lys Lys Asn Ala Tyr Leu Leu Val Pro Leu Cys His Ile
      50      55      60
Trp Ser His Leu Ser Gly Ser Lys Val Lys Gly His Phe Leu Lys Phe

```

```

65              70              75              80
Phe Leu Leu Phe Ile Lys Ser His Gly Arg Val Asp Ala Gly Gly Gln
              85              90              95
Ala Pro Val Ala Gly Leu Asp Glu Asp Pro Glu Thr Ala Gly Gln Ala
              100              105              110
Ala Glu Ala Arg
              115

```

&lt;210&gt; 3479

&lt;211&gt; 797

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3479

```

nctttccaac ccagcctgaa ggggaaagcc acctcggagg acaccctcaa tctaaggaga
60
taccgccggct ctgacaggat catgctgcag aagtggcaga aaagggacat cagcaatttt
120
gagtatctca tgtacctcaa caccgcggtt gggagaacct gcaatgacta catgcagtac
180
ccagtgttcc cctgggtcct cgcagactac acctcagaga cattgaactt ggcaaatccg
240
aagattttcc gggatctttc aaagcccatg ggggctcaga ccaaggaaag gaagctgaaa
300
tttatccaga ggtttaaaga agttgagaaa actgaaggag acatgactgc ccagtgccac
360
tactacaccc actactcctc ggccatcacc gtggcctcct acctggtccg gatgccaccc
420
ttcaccacag ccttctgcgc tctgcagggt agctgctgcc actctctgta cacacacaca
480
cacacacaca cacacacata cgcctgtatc acaagactaa gacctgtgct tgaacaaaga
540
caggatgcct ctgctaaaaa cttagtcatt agccagtgat tcccagttga cattggctcc
600
aggattctgg ctaccagcc aaggcaggct gttcttcctc agttacacct gcacatctgc
660
ccaacaaagt cttgcaaaat gattctaaaa aataagaaat gagacatgaa aaaaatgatt
720
taacataaat aagatttagt ggaaaaagaa aaagcaggaa acctggagac tagaaaggca
780
ggcgggtcaag gattaga
797

```

&lt;210&gt; 3480

&lt;211&gt; 192

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3480

```

Xaa Phe Gln Pro Ser Leu Lys Gly Lys Ala Thr Ser Glu Asp Thr Leu
1          5          10          15
Asn Leu Arg Arg Tyr Pro Gly Ser Asp Arg Ile Met Leu Gln Lys Trp
          20          25          30
Gln Lys Arg Asp Ile Ser Asn Phe Glu Tyr Leu Met Tyr Leu Asn Thr

```



35					40					45					
Ala	Ala	Gly	Arg	Thr	Cys	Asn	Asp	Tyr	Met	Gln	Tyr	Pro	Val	Phe	Pro
50					55					60					
Trp	Val	Leu	Ala	Asp	Tyr	Thr	Ser	Glu	Thr	Leu	Asn	Leu	Ala	Asn	Pro
65	70					75					80				
Lys	Ile	Phe	Arg	Asp	Leu	Ser	Lys	Pro	Met	Gly	Ala	Gln	Thr	Lys	Glu
85					90					95					
Arg	Lys	Leu	Lys	Phe	Ile	Gln	Arg	Phe	Lys	Glu	Val	Glu	Lys	Thr	Glu
100					105					110					
Gly	Asp	Met	Thr	Ala	Gln	Cys	His	Tyr	Tyr	Thr	His	Tyr	Ser	Ser	Ala
115					120					125					
Ile	Ile	Val	Ala	Ser	Tyr	Leu	Val	Arg	Met	Pro	Pro	Phe	Thr	Gln	Ala
130					135					140					
Phe	Cys	Ala	Leu	Gln	Val	Ser	Cys	Cys	His	Ser	Leu	Tyr	Thr	His	Thr
145	150					155					160				
His	Thr	His	Thr	His	Thr	Tyr	Ala	Cys	Ile	Thr	Arg	Leu	Arg	Pro	Val
165					170					175					
Leu	Glu	Gln	Arg	Gln	Asp	Ala	Ser	Ala	Lys	Asn	Leu	Val	Ile	Ser	Gln
180					185					190					

<210> 3481

<211> 1794

<212> DNA

<213> Homo sapiens

<400> 3481

nncaacgtgg	tcaccacctc	acgaactata	agaagcgtgt	ggcagccttg	gaagccacgc
60	aaaagcccag	cacttcccag	agccagggac	tgacacaaca	gaaagtctgc
120	atgaggtcct	gaccagaggg	tcttctgcc	atgcctcaa	gtggtcacca
180	gcagaccctg	cggtgctggg	agccaccatg	gagagtaggt	gctacggctg
240	ttcaccctct	tcaagaagga	gtacggctgt	aagaattgtg	gcaggngctt
300	tgctaagct	tcagtgcagc	agtgcctcgg	actgggaaca	cccaacagaa
360	caatgccatg	aggtcctgac	cagaggggtct	tctgccaatg	cctccaagtg
420	cagaactata	agaagcgtgt	ggcagccttg	gaagccaagc	aaaagcccag
480	agccagggac	tgacacgaca	agaccagatg	attgctgagc	gcctagcacg
540	gagaacaagc	ccaagttagt	ccctcacag	gcagagatag	aggcacggct
600	aaggatgaac	gtcaggggttc	catcccttcc	accaggaaa	tgagggcacg
660	ttgcagggca	gagttctacc	ttctcaaacc	cccagcccg	gcacatcaca
720	caggacccaa	gcccagcaga	cacaggatct	gctaacgcag	ctggcagctg
780	cgatgaaagc	tggaaaggag	gaggcccagc	tgctctcttc	cagaatgata
840					tcaaccaggg

tggcccaggg agcactaatt ccaagaggca ggccacttgg ttcttgagaga aggagaagag  
 900  
 cagactgctg gctgaggcag cacttgagtt gcgggaggag aacacgaggc aggaacggat  
 960  
 tctggccctg gccaaagcgac tagccatgct gcggggacag gaccccgaga gattgaccct  
 1020  
 ccaggactat cgcctcccag acagtgatga cgacgaggat gaggagacag ccatccaaag  
 1080  
 agtcctgcag cagctcactg aagaagcttc cctggatgag gcaagtggct ttaacatccc  
 1140  
 tgcagagcag gcttctcgac cctggacgca accccgcggg gcagagcctg agggccagga  
 1200  
 tgtggacccc aggcctgagg ctgaggaaga ggagctcccc tgggtgctgca tctgcaatga  
 1260  
 ggatgccacc ctacgctgcg ctggctgca tggggacctc ttctgtgccc gctgcttccg  
 1320  
 agagggccat gatgcctttg agcttaaaga gcaccagaca tctgcctact ctctccacg  
 1380  
 tgcaggccaa gagcactgaa gacaccctgg tcctcccga agggcagtcc cacaggcagc  
 1440  
 ggcacccatt tctgggcccc gccacaggac gtccgatggg agagcttgtc tggctctact  
 1500  
 gatgatggat agggcccttc ctgagccttg gtgtccctgg aatgaggaaa gattctccat  
 1560  
 tcgagagaat gactgggagg gaagaagtcg gggccctcct attagaagcc cagactggaa  
 1620  
 gtgagaggca tgatggggag agaccagact gaatctacgg gtgagccctg taacctgggt  
 1680  
 ctagggcaca ggccctcccc ctggcactta gtgggtctaa taaagtatgt tgattcattg  
 1740  
 ggaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaa  
 1794

<210> 3482

<211> 206

<212> PRT

<213> Homo sapiens

<400> 3482

Met	Pro	Pro	Ser	Gly	His	His	Leu	Ser	Ser	Ala	Asp	Pro	Ala	Val	Leu
1				5				10						15	
Gly	Ala	Thr	Met	Glu	Ser	Arg	Cys	Tyr	Gly	Cys	Ala	Val	Lys	Phe	Thr
			20					25					30		
Leu	Phe	Lys	Lys	Glu	Tyr	Gly	Cys	Lys	Asn	Cys	Gly	Arg	Xaa	Phe	Cys
		35					40					45			
Ser	Gly	Cys	Leu	Ser	Phe	Ser	Ala	Ala	Val	Pro	Arg	Thr	Gly	Asn	Thr
	50					55				60					
Gln	Gln	Lys	Val	Cys	Lys	Gln	Cys	His	Glu	Val	Leu	Thr	Arg	Gly	Ser
65				70					75					80	
Ser	Ala	Asn	Ala	Ser	Lys	Trp	Ser	Pro	Pro	Gln	Asn	Tyr	Lys	Lys	Arg
			85					90					95		
Val	Ala	Ala	Leu	Glu	Ala	Lys	Gln	Lys	Pro	Ser	Thr	Ser	Gln	Ser	Gln
			100					105					110		
Gly	Leu	Thr	Arg	Gln	Asp	Gln	Met	Ile	Ala	Glu	Arg	Leu	Ala	Arg	Leu

```

      115              120              125
Arg  Gln Glu Asn Lys Pro Lys Leu Val Pro Ser Gln Ala Glu Ile Glu
      130              135              140
Ala Arg Leu Ala Ala Leu Lys Asp Glu Arg Gln Gly Ser Ile Pro Ser
145              150              155              160
Thr Gln Glu Met Glu Ala Arg Leu Ala Ala Leu Gln Gly Arg Val Leu
      165              170              175
Pro Ser Gln Thr Pro Gln Pro Gly Thr Ser His Thr Gly His Gln Asp
      180              185              190
Pro Ser Pro Ala Asp Thr Gly Ser Ala Asn Ala Ala Gly Ser
      195              200              205

```

&lt;210&gt; 3483

&lt;211&gt; 477

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3483

```

nccggccgcgg cgcggaacgg cgcctcccgcc cccaccatgg gcaacagcgc gagccgcaac
60
gacttcgagt gggctctacac cgaccagccg cacacgcagc ggcgcaagga gatactggcc
120
aagtacccgg ccatcaaggc cctgatgagg ccagaccgcg gcctcaagtg ggcggggctg
180
gtgctgggtg tggtgcagat gctggcctgc tggctgggtg gcgggctggc ctggcgctgg
240
ctgctgttct gggcctacgc ctttggtggc tgcgtgaacc actcgtgac gctggccatc
300
cacgacatct cgcacaacgc ggccttcggc acggggccgtg cggcacgcaa ccgctggctg
360
gccgtgttcg ccaacctgcc cgtgggtgtg ccctacgccg cctccttcaa gaagtaccac
420
gtggaccacc accgctacct gggcggcgac ggactggacg tggacgtgcc cacgcgt
477

```

&lt;210&gt; 3484

&lt;211&gt; 147

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3484

```

Met Gly Asn Ser Ala Ser Arg Asn Asp Phe Glu Trp Val Tyr Thr Asp
1      5      10      15
Gln Pro His Thr Gln Arg Arg Lys Glu Ile Leu Ala Lys Tyr Pro Ala
20     25     30
Ile Lys Ala Leu Met Arg Pro Asp Pro Arg Leu Lys Trp Ala Gly Leu
35     40     45
Val Leu Val Leu Val Gln Met Leu Ala Cys Trp Leu Val Arg Gly Leu
50     55     60
Ala Trp Arg Trp Leu Leu Phe Trp Ala Tyr Ala Phe Gly Gly Cys Val
65     70     75     80
Asn His Ser Leu Thr Leu Ala Ile His Asp Ile Ser His Asn Ala Ala
85     90     95
Phe Gly Thr Gly Arg Ala Ala Arg Asn Arg Trp Leu Ala Val Phe Ala

```

100 105 110  
 Asn Leu Pro Val Gly Val Pro Tyr Ala Ala Ser Phe Lys Lys Tyr His  
 115 120 125  
 Val Asp His His Arg Tyr Leu Gly Gly Asp Gly Leu Asp Val Asp Val  
 130 135 140  
 Pro Thr Arg  
 145

<210> 3485  
 <211> 812  
 <212> DNA  
 <213> Homo sapiens

<400> 3485  
 tattttattta tagtcacaaa aactgttcag gaagaaatgt tatgaaaaga acattttttac  
 60  
 tgcattgctta aaacatttaa ttttctatta tacagttaaa catttgcttg aattcagtga  
 120  
 gtctaaaaaa tcttattggt ctcagggttag cagttagttg agcagagtcc attggtgaag  
 180  
 caatctagtt attggcaaat tctaacacat ggtaaggtgt gggggaaagg atttaaaata  
 240  
 acagaaaaat gtaagtacaa acatacataa cagcaaaata aaactcactt taacaaaaat  
 300  
 ttatttataaa tgttaccccc atatttcctc aatgaccaac ttgtttcagt tttatctccc  
 360  
 cctcatccgg ttattttatg tctttttggg aggaaggagg atgagggttt ttgtttttta  
 420  
 acaaaatcac tggcttttta aaaagtgtta ctgcagtcatt ttataagatg catgttatgt  
 480  
 ggaagtgata cctgagttgt ttgcattgggc aatggaagag gcagcagctc tgaaaggagt  
 540  
 atgagtccag aaaaaaatcc ttcaggaacc ttcaagattg aagaaagaac ttcttttaac  
 600  
 attaaagacc aagtattatt ggccagagtc tcttctgaga ttgtgagttt ttcattaact  
 660  
 ccttgtgtaa aagtcagtaa aatatcaatg atatcattct gaattttctg ttcatacta  
 720  
 tccaaacgac ctgagagggg gatagagcac aggagcatat gtaaagtaac aagcgctgaa  
 780  
 ggaacacgca tgcctttaa ctcaaaggat cc  
 812

<210> 3486  
 <211> 117  
 <212> PRT  
 <213> Homo sapiens

<400> 3486  
 Met Arg Val Pro Ser Ala Leu Val Thr Leu His Met Leu Leu Cys Ser  
 1 5 10 15  
 Ile Pro Leu Ser Gly Arg Leu Asp Ser Asp Glu Gln Lys Ile Gln Asn  
 20 25 30  
 Asp Ile Ile Asp Ile Leu Leu Thr Phe Thr Gln Gly Val Asn Glu Lys

```

      35              40              45
Leu Thr Ile Ser Glu Glu Thr Leu Ala Asn Asn Thr Trp Ser Leu Met
  50              55              60
Leu Lys Glu Val Leu Ser Ser Ile Leu Lys Val Pro Glu Gly Phe Phe
  65              70              75              80
Ser Gly Leu Ile Leu Leu Ser Glu Leu Leu Pro Leu Pro Leu Pro Met
      85              90              95
Gln Thr Thr Gln Val Ser Leu Pro His Asn Met His Leu Ile Asn Asp
      100              105              110
Cys Ser Asn Thr Phe
      115

```

&lt;210&gt; 3487

&lt;211&gt; 772

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3487

```

nnattgtatc aaaatcctag atttgaataa cttattatct taaataatca gtaactaaaa
60
ccaagcaatc catcacacaa agaggggaaa gggtaatat ctgagttata aattttttac
120
cctgtctgat aaaaatagaa gcctgaaagt ttaaattttt cctggattta aatttaaaga
180
taaatttggt ttccagtga ataccctcaa tagcaatttt accaaagagg cttctctctg
240
aaggccacct ctgaaataat tagaggataa atgtcaatgg catgatatta agatattact
300
tggccaggcg tggctcgtcac gcgtgtaatc ccagcacttt gggaggccga ggcagggtgga
360
tcacgaggtc aagaaatcga gaccagcctg gctaacacag tgaaaccccg tctcattctg
420
agcttcttga caccttttaa tccagtcact gaaattagca tctgcaccta gaaagaaaaa
480
actgactata acatcactca tctgcacaac ctattaatca gcaaataactt actgaatacc
540
tactacatcc caggcagtgt tctaggcact ggggagtcgg cagcgaacaa aacctgtctt
600
aacagacctt atcaccaact ctactatagt tataaacata ccaatagttt aacatttagt
660
tgttaatcat gaaacatttt gattttttta aaattttaac tacagtcaac cttaatttca
720
cagatacaaa taatctgcat ttcccccaat cccgctgctc ttagagaagc tt
772

```

&lt;210&gt; 3488

&lt;211&gt; 59

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3488

```

Asp Ile Thr Trp Pro Gly Val Val Val Thr Arg Val Ile Pro Ala Leu
  1              5              10              15
Trp Glu Ala Glu Ala Gly Gly Ser Arg Gly Gln Glu Ile Glu Thr Ser

```

```

      20      25      30
Leu Ala Asn Thr Val Lys Pro Arg Leu Ile Leu Ser Phe Leu Thr Pro
      35      40      45
Phe Asn Pro Val Thr Glu Ile Ser Ile Cys Thr
      50      55

```

<210> 3489  
 <211> 288  
 <212> DNA  
 <213> Homo sapiens

```

<400> 3489
tagctaacac tccactatgg gagcccatct cctcccaggg ccagggagac cagggagacc
60
agggagacca ggtctggccc ccaactctaa ggctcatctt agaggcgaga ttcaggccca
120
gcccgagggtg ccccatgagg cctggtgggtt ggaggcagag ggtatccctt gcccaaattc
180
gtgccacatt cacagtcact gggaaagcta cggggatggg ccgggcgcgg tggctcacac
240
ctgtaatccc agcactttgg agagccccaa gacgacggat cacgagtc
288

```

<210> 3490  
 <211> 90  
 <212> PRT  
 <213> Homo sapiens

```

<400> 3490
Met Gly Ala His Leu Leu Pro Gly Pro Gly Arg Pro Gly Arg Pro Gly
1      5      10      15
Arg Pro Gly Leu Ala Pro Asn Ser Lys Ala His Leu Arg Gly Glu Ile
      20      25      30
Gln Ala Gln Pro Arg Val Pro His Glu Ala Trp Trp Leu Glu Ala Glu
      35      40      45
Gly Ile Pro Cys Pro Asn Ser Cys His Ile His Ser His Trp Glu Ser
      50      55      60
Tyr Gly Asp Gly Pro Gly Ala Val Ala His Thr Cys Asn Pro Ser Thr
65      70      75      80
Leu Glu Ser Pro Lys Thr Thr Asp His Glu
      85      90

```

<210> 3491  
 <211> 568  
 <212> DNA  
 <213> Homo sapiens

```

<400> 3491
gggaaccgac gtccctctgt ggtgaaattc cacccttca cgccgtgcat cgccgtagcc
60
gacaaggaca gcatctgctt ttgggactgg gagaaagggg agaagctgga ttatttccac
120
aatgggaacc ctcggtacac gagggtcact gccatggagt atctgaatgg ccaggactgc
180

```

tcgcttctgc tgacggccac agacgatggt gccatcaggg tctggaagaa ttttgctgat  
 240  
 ttgaaaaga acccagagat ggtgaccgcg tggcaggggc tctcggacat gctgccaacg  
 300  
 acgcgaggag ctgggatggt ggtggactgg gagcaggaga cggcctcct catgagctca  
 360  
 ggagacgtgc ggatcgctcg gatctgggac acagaccgtg agatgaaggt gcaggacatc  
 420  
 cctacgggcg cagacagctg tgtgacgagt ctgtcctgtg attcccaccg ctcaatcatc  
 480  
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<210> 3492

<211> 189

<212> PRT

<213> Homo sapiens

<400> 3492

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			20					25					30		
Gly	Glu	Lys	Leu	Asp	Tyr	Phe	His	Asn	Gly	Asn	Pro	Arg	Tyr	Thr	Arg
		35					40					45			
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	50						55				60				
Thr	Ala	Thr	Asp	Asp	Gly	Ala	Ile	Arg	Val	Trp	Lys	Asn	Phe	Ala	Asp
65					70				75					80	
Leu	Glu	Lys	Asn	Pro	Glu	Met	Val	Thr	Ala	Trp	Gln	Gly	Leu	Ser	Asp
			85						90					95	
Met	Leu	Pro	Thr	Thr	Arg	Gly	Ala	Gly	Met	Val	Val	Asp	Trp	Glu	Gln
		100						105						110	
Glu	Thr	Gly	Leu	Leu	Met	Ser	Ser	Gly	Asp	Val	Arg	Ile	Val	Arg	Ile
		115					120					125			
Trp	Asp	Thr	Asp	Arg	Glu	Met	Lys	Val	Gln	Asp	Ile	Pro	Thr	Gly	Ala
	130					135					140				
Asp	Ser	Cys	Val	Thr	Ser	Leu	Ser	Cys	Asp	Ser	His	Arg	Ser	Leu	Ile
145					150					155				160	
Val	Ala	Gly	Leu	Gly	Asp	Gly	Ser	Ile	Arg	Val	Tyr	Asp	Arg	Arg	Met
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<210> 3493

<211> 2244

<212> DNA

<213> Homo sapiens

<400> 3493

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1680



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 2040  
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<210> 3494

<211> 628

<212> PRT

<213> Homo sapiens

<400> 3494

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Gln	Pro	Ser	Asn	Lys	Glu	Leu	Phe	Gly	Asp	Asp	Ser	Glu	Asp	Glu	Gly
			20					25				30			
Ala	Ser	His	His	Ser	Gly	Ser	Asp	Asn	His	Ser	Glu	Arg	Ser	Asp	Asn
		35					40				45				
Arg	Ser	Glu	Ala	Ser	Glu	Arg	Ser	Asp	His	Glu	Asp	Asn	Asp	Pro	Ser
	50					55				60					
Asp	Val	Asp	Gln	His	Ser	Gly	Ser	Glu	Ala	Pro	Asn	Asp	Asp	Glu	Asp
65				70					75					80	
Glu	Gly	His	Arg	Ser	Asp	Gly	Gly	Ser	His	His	Ser	Glu	Ala	Glu	Gly
			85					90						95	
Ser	Glu	Lys	Ala	His	Ser	Asp	Asp	Glu	Lys	Trp	Gly	Arg	Glu	Asp	Lys
		100						105				110			
Ser	Asp	Gln	Ser	Asp	Asp	Glu	Lys	Ile	Gln	Asn	Ser	Asp	Asp	Glu	Glu
	115					120						125			
Arg	Ala	Gln	Gly	Ser	Asp	Glu	Asp	Lys	Leu	Gln	Asn	Ser	Asp	Asp	Asp
	130					135				140					
Glu	Lys	Met	Gln	Asn	Thr	Asp	Asp	Glu	Glu	Arg	Pro	Gln	Leu	Ser	Asp
145				150					155					160	
Asp	Glu	Arg	Gln	Gln	Leu	Ser	Glu	Glu	Glu	Lys	Ala	Asn	Ser	Asp	Asp
			165					170						175	
Glu	Arg	Pro	Val	Ala	Ser	Asp	Asn	Asp	Asp	Glu	Lys	Gln	Asn	Ser	Asp
		180						185					190		
Asp	Glu	Glu	Gln	Pro	Gln	Leu	Ser	Asp	Glu	Glu	Lys	Met	Gln	Asn	Ser
	195					200						205			
Asp	Asp	Glu	Arg	Pro	Gln	Ala	Pro	Asp	Glu	Glu	His	Arg	His	Ser	Asp

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225	230	235
Ser Glu Asp Glu Val	Leu Arg Met Lys Arg	Lys Asn Ala Ile Ala Ser
245	250	255
Asp Ser Glu Ala Asp	Ser Asp Thr Glu Val	Pro Lys Asp Asn Ser Gly
260	265	270
Thr Met Asp Leu Phe	Gly Gly Ala Asp Asp	Ile Ser Ser Gly Ser Asp
275	280	285
Gly Glu Asp Lys Pro	Pro Thr Pro Gly Gln	Pro Val Asp Glu Asn Gly
290	295	300
Leu Pro Gln Asp Gln	Gln Glu Glu Glu Pro	Ile Pro Glu Thr Arg Ile
305	310	315
Glu Val Glu Ile Pro	Lys Val Asn Thr Asp	Leu Gly Asn Asp Leu Tyr
325	330	335
Phe Val Lys Leu Pro	Asn Phe Leu Ser Val	Glu Pro Arg Pro Phe Asp
340	345	350
Pro Gln Tyr Tyr Glu	Asp Glu Phe Glu Asp	Glu Glu Met Leu Asp Glu
355	360	365
Glu Gly Arg Thr Arg	Leu Lys Leu Lys Val	Glu Asn Thr Ile Arg Trp
370	375	380
Arg Ile Arg Arg Asp	Glu Glu Gly Asn Glu	Ile Lys Glu Ser Asn Ala
385	390	395
Arg Ile Val Lys Trp	Ser Asp Gly Ser Met	Ser Leu His Leu Gly Asn
405	410	415
Glu Val Phe Asp Val	Tyr Lys Ala Pro Leu	Gln Gly Asp His Asn His
420	425	430
Leu Phe Ile Arg Gln	Gly Thr Gly Leu Gln	Gly Gln Ala Val Phe Lys
435	440	445
Ala Lys Leu Thr Phe	Arg Pro His Ser Thr	Asp Ser Ala Thr His Arg
450	455	460
Lys Met Thr Leu Ser	Leu Ala Asp Arg Cys	Ser Lys Thr Gln Lys Ile
465	470	475
Arg Ile Leu Pro Met	Ala Gly Arg Asp Pro	Glu Cys Gln Arg Thr Glu
485	490	495
Met Ile Lys Lys Glu	Glu Glu Arg Leu Arg	Ala Ser Ile Arg Arg Glu
500	505	510
Ser Gln Gln Arg Arg	Met Arg Glu Lys Gln	His Gln Arg Gly Leu Ser
515	520	525
Ala Ser Tyr Leu Glu	Pro Asp Arg Tyr Asp	Glu Glu Glu Gly Glu
530	535	540
Glu Ser Ile Ser Leu	Ala Ala Ile Lys Asn	Arg Tyr Lys Gly Gly Ile
545	550	555
Arg Glu Glu Arg Ala	Arg Ile Tyr Ser Ser	Asp Ser Asp Glu Gly Ser
565	570	575
Glu Glu Asp Lys Ala	Gln Arg Leu Leu Lys	Ala Lys Lys Leu Thr Ser
580	585	590
Asp Glu Glu Gly Glu	Pro Ser Gly Lys Arg	Lys Ala Glu Asp Asp Asp
595	600	605
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<210> 3495  
 <211> 1085  
 <212> DNA  
 <213> Homo sapiens

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 180  
 aagaacccgg atgagggcga gaagtttaaa ctcatatccc aggcataatga agtgctttca  
 240  
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 360  
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 420  
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 aagcacgggg acctgagatg cgtgcgcgat gaaggaatgc ccatctacaa agcaccctg  
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<210> 3496  
 <211> 337  
 <212> PRT  
 <213> Homo sapiens

<400> 3496  
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<210> 3497
<211> 1638
<212> DNA
<213> Homo sapiens
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300  
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360  
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420  
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720  
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1620  
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&lt;210&gt; 3498

&lt;211&gt; 210

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3498

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 20           25           30
Cys Cys Cys Cys Ser Cys Ser Cys Leu Thr Val Arg Asn Glu Glu Arg
 35           40           45
Gly Glu Asn Ala Gly Arg Pro Thr His Thr Thr Lys Met Glu Ser Ile
 50           55           60
Gln Val Leu Glu Glu Cys Gln Asn Pro Thr Ala Glu Glu Val Leu Ser
 65           70           75           80
Trp Ser Gln Asn Phe Asp Lys Met Met Lys Ala Pro Ala Gly Arg Asn
 85           90           95
Leu Phe Arg Glu Phe Leu Arg Thr Glu Tyr Ser Glu Glu Asn Leu Leu
100           105           110
Phe Trp Leu Ala Cys Glu Asp Leu Lys Lys Glu Gln Asn Lys Lys Val
115           120           125
Ile Glu Glu Lys Ala Arg Met Ile Tyr Glu Asp Tyr Ile Ser Ile Leu
130           135           140
Ser Pro Lys Glu Val Ser Leu Asp Ser Arg Val Arg Glu Val Ile Asn
145           150           155           160
Arg Asn Leu Leu Asp Pro Asn Pro His Met Tyr Glu Asp Ala Gln Leu
165           170           175
Gln Ile Tyr Thr Leu Met His Arg Asp Ser Phe Pro Arg Phe Leu Asn
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Ser Gln Ile Tyr Lys Ser Phe Val Glu Ser Thr Ala Gly Ser Ser Ser
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Glu Ser
210

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&lt;210&gt; 3499

&lt;211&gt; 732

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3499

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480
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<210> 3500

<211> 168

<212> PRT

<213> Homo sapiens

<400> 3500

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			20					25					30		
Ala	Ser	Thr	Gly	Lys	Gln	Gly	Ala	Pro	Gly	Pro	Asp	Trp	Ala	Cys	Ile
			35				40					45			
Phe	His	Val	Val	Leu	Gln	Pro	Ser	Arg	His	Gly	Pro	Glu	Ala	Thr	Ala
	50				55					60					
Ala	Pro	Gln	Ser	Pro	Pro	Thr	Pro	Ala	Val	Pro	Pro	Gly	His	Gly	Ala
65					70				75					80	
His	Asp	Ser	Gly	Pro	Gly	Gln	Arg	Gln	Arg	Gln	Gly	Ala	Gly	Ser	Thr
			85					90						95	
Pro	Ala	Arg	Val	Pro	Val	His	Gly	Ser	Pro	Ser	Ser	Cys	Arg	Ala	Leu
			100					105					110		
Arg	Pro	Ala	Gly	Arg	Ser	Ser	Arg	Ala	Ala	Pro	Arg	Ala	Ser	Pro	Ala
			115				120					125			
Gly	Gln	Ala	Ser	Ser	Arg	Pro	Xaa	Ser	Gly	Ala	Met	His	Arg	Leu	Gly
	130					135					140				
Glu	Gly	Asn	Arg	Ala	Gly	Glu	Lys	Val	Phe	Arg	Arg	Thr	Ala	Val	Gln
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Lys	Arg	Arg	Val	Gly	Gly	Thr									
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<210> 3501

<211> 691

<212> DNA

<213> Homo sapiens

<400> 3501

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 120  
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 180  
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 240  
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 300

ttagaagaac tgtggatctc ctacaatttt attgagaagt tgaaagggat ccacataatg  
 360  
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 420  
 aagctggcag aactgccatg cctcgaagac ctggtgtttg taggcaatcc cttggaagag  
 480  
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 540  
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 691

<210> 3502

<211> 196

<212> PRT

<213> Homo sapiens

<400> 3502

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			20					25					30		
Glu	Ile	Lys	Leu	Tyr	Ala	Gln	Ile	Pro	Pro	Ile	Glu	Lys	Met	Asp	Ala
		35					40					45			
Ser	Leu	Ser	Met	Leu	Ala	Asn	Cys	Glu	Lys	Leu	Ser	Leu	Ser	Thr	Asn
		50				55					60				
Cys	Ile	Glu	Lys	Ile	Ala	Asn	Leu	Asn	Gly	Leu	Lys	Asn	Leu	Arg	Ile
65				70					75					80	
Leu	Ser	Leu	Gly	Arg	Asn	Asn	Ile	Lys	Asn	Leu	Asn	Gly	Leu	Glu	Ala
			85						90					95	
Val	Gly	Asp	Thr	Leu	Glu	Glu	Leu	Trp	Ile	Ser	Tyr	Asn	Phe	Ile	Glu
			100						105					110	
Lys	Leu	Lys	Gly	Ile	His	Ile	Met	Lys	Lys	Leu	Lys	Ile	Leu	Tyr	Met
			115				120					125			
Ser	Asn	Asn	Leu	Val	Lys	Asp	Trp	Ala	Glu	Phe	Val	Lys	Leu	Ala	Glu
		130				135					140				
Leu	Pro	Cys	Leu	Glu	Asp	Leu	Val	Phe	Val	Gly	Asn	Pro	Leu	Glu	Glu
145				150						155				160	
Lys	His	Ser	Ala	Glu	Asn	Asn	Trp	Ile	Glu	Glu	Ala	Thr	Lys	Arg	Val
			165						170					175	
Pro	Lys	Leu	Lys	Lys	Leu	Asp	Gly	Thr	Pro	Val	Ile	Lys	Gly	Asp	Glu
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Glu	Glu	Asp	Asn												
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<210> 3503

<211> 857

<212> DNA

<213> Homo sapiens

<400> 3503



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 857

&lt;210&gt; 3504

&lt;211&gt; 285

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3504

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Gln	Gly	Cys	Gly	Ser	Leu	Phe	Thr	Leu	Val	Ser	Lys	Pro	Phe	Cys	Ala
		20						25					30		
Ala	Ala	Ala	Ala	Ser	Thr	Ala	Ile	Asn	Ala	Gln	Arg	Leu	Ala	Glu	Lys
		35					40					45			
Leu	Arg	Ala	Gln	Lys	Arg	Glu	Gln	Asp	Thr	Lys	Lys	Glu	Pro	Val	Ser
	50				55					60					
Thr	Asn	Ala	Val	Gln	Arg	Arg	Val	Gln	Glu	Ile	Val	Arg	Phe	Thr	Arg
65				70					75					80	
Gln	Leu	Gln	Arg	Val	His	Pro	Asn	Val	Leu	Ala	Lys	Ala	Leu	Thr	Arg
			85					90					95		
Gly	Ile	Leu	His	Gln	Asp	Lys	Asn	Leu	Val	Val	Ile	Asn	Lys	Pro	Tyr
		100					105					110			
Gly	Leu	Pro	Val	His	Gly	Gly	Pro	Gly	Val	Gln	Leu	Cys	Ile	Thr	Asp
		115					120					125			
Val	Leu	Pro	Ile	Leu	Ala	Lys	Met	Leu	His	Gly	His	Lys	Ala	Glu	Pro

130	135	140
Leu His Leu Cys His Arg Leu Asp Lys Glu Thr Thr Gly Val Met Val		
145	150	155
Leu Ala Trp Asp Lys Asp Met Ala His Gln Val Gln Glu Leu Phe Arg		160
	165	170
Thr Arg Gln Val Val Lys Lys Tyr Trp Ala Ile Thr Val His Val Pro		175
	180	185
Met Pro Ser Ala Gly Val Val Asp Ile Pro Ile Val Glu Lys Glu Gly		190
	195	200
Gln Gly Gln Gln Gln His Pro Arg Met Thr Leu Ser Pro Ser Ser Arg		205
	210	215
Met Asp Asp Gly Lys Met Val Lys Val Arg Arg Ser Arg Asn Ala Gln		220
225	230	235
Val Ala Val Thr Gln Tyr Gln Val Leu Ser Ser Thr Leu Ser Ser Ala		240
	245	250
Leu Val Glu Leu Gln Pro Ile Thr Gly Ile Lys His Gln Leu Arg Val		255
	260	265
His Leu Ser Phe Gly Leu Asp Cys Pro Ile Leu Gly Asp		270
	275	280
		285

&lt;210&gt; 3505

&lt;211&gt; 1612

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens.

&lt;400&gt; 3505

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&lt;210&gt; 3506

&lt;211&gt; 502

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3506

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Met	Thr	Leu	Thr	Leu	Phe	Pro	Val	Arg	Leu	Leu	Val	Ala	Ala	Ala	Met
				20				25					30		
Met	Leu	Leu	Ala	Trp	Pro	Leu	Ala	Leu	Val	Ala	Ser	Leu	Gly	Ser	Ala
			35				40					45			
Glu	Lys	Glu	Pro	Glu	Gln	Pro	Pro	Ala	Leu	Trp	Arg	Lys	Val	Val	Asp
		50				55					60				
Phe	Leu	Leu	Lys	Ala	Ile	Met	Arg	Thr	Met	Trp	Phe	Ala	Gly	Gly	Phe
65					70					75				80	
His	Arg	Val	Ala	Val	Lys	Gly	Arg	Gln	Ala	Leu	Pro	Thr	Glu	Ala	Ala
				85				90						95	
Ile	Leu	Thr	Leu	Ala	Pro	His	Ser	Ser	Tyr	Phe	Asp	Ala	Ile	Pro	Val
			100					105					110		
Thr	Met	Thr	Met	Ser	Ser	Ile	Val	Met	Lys	Thr	Glu	Ser	Arg	Asp	Ile
		115					120					125			
Pro	Ile	Trp	Gly	Thr	Leu	Ile	Gln	Tyr	Ile	Arg	Pro	Val	Phe	Val	Ser
		130				135					140				
Arg	Ser	Asp	Gln	Asp	Ser	Arg	Arg	Lys	Thr	Val	Glu	Glu	Ile	Lys	Arg
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<210> 3507
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<212> DNA
<213> Homo sapiens
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<210> 3508

<211> 199

<212> PRT

<213> Homo sapiens

<400> 3508

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			20					25					30		
Cys	Ile	Ala	Phe	Leu	Ile	Ile	Ile	Gly	Asp	Gln	Gln	Asp	Lys	Ile	Ile
		35					40					45			
Ala	Val	Met	Ala	Lys	Glu	Pro	Glu	Gly	Ala	Ser	Gly	Pro	Trp	Tyr	Thr
	50					55					60				
Asp	Arg	Lys	Phe	Thr	Ile	Ser	Leu	Thr	Ala	Phe	Leu	Phe	Ile	Leu	Pro
65					70					75					80
Leu	Ser	Ile	Pro	Arg	Glu	Ile	Gly	Phe	Gln	Lys	Tyr	Ala	Ser	Phe	Leu
			85					90						95	
Ser	Val	Val	Gly	Thr	Trp	Tyr	Val	Thr	Ala	Ile	Val	Ile	Ile	Lys	Tyr
		100						105					110		
Ile	Trp	Pro	Asp	Lys	Glu	Met	Thr	Pro	Gly	Asn	Ile	Leu	Thr	Arg	Pro
		115					120					125			
Ala	Ser	Trp	Met	Ala	Val	Phe	Asn	Ala	Met	Pro	Thr	Ile	Cys	Phe	Gly
	130					135					140				
Phe	Gln	Cys	His	Val	Ser	Ser	Val	Pro	Val	Phe	Asn	Ser	Met	Gln	Gln
145				150						155				160	
Pro	Glu	Val	Lys	Thr	Trp	Gly	Gly	Val	Val	Thr	Ala	Ala	Met	Val	Ile

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 <211> 331  
 <212> DNA  
 <213> Homo sapiens

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<210> 3510  
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 <212> PRT  
 <213> Homo sapiens

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 35 40 45  
 Glu Gly Glu Leu Pro Thr His Glu Gln Val Phe Leu Ser Pro Pro Pro  
 50 55 60  
 Pro Leu Ser Pro Arg Gly Pro Gly Leu Pro Gln Lys Leu Glu Glu Arg  
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 Arg Gln Leu Gly Lys Ala Pro Met Gly Gly Val Pro Trp Gly Ser Asp  
 85 90 95  
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<210> 3511  
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 <212> DNA  
 <213> Homo sapiens

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300  
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3319

&lt;210&gt; 3512

&lt;211&gt; 462

&lt;212&gt; -PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3512

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 20 25 30  
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 35 40 45  
 Glu Gly Thr Ala Glu Lys Ser Lys Lys Leu Arg Thr Thr Asn Glu His  
 50 55 60  
 Ser Gln Thr Cys Asp Trp Gly Asn Leu Leu Gln Asp Ile Ile Leu Gln  
 65 70 75 80  
 Val Phe Lys Tyr Leu Pro Leu Leu Asp Arg Ala His Ala Ser Gln Val  
 85 90 95  
 Cys Arg Asn Trp Asn Gln Val Phe His Met Pro Asp Leu Trp Arg Cys  
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 Phe Glu Phe Glu Leu Asn Gln Pro Ala Thr Ser Tyr Leu Lys Ala Thr  
 115 120 125  
 His Pro Glu Leu Ile Lys Gln Ile Ile Lys Arg His Ser Asn His Leu  
 130 135 140  
 Gln Tyr Val Ser Phe Lys Val Asp Ser Ser Lys Glu Ser Ala Glu Ala  
 145 150 155 160  
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 Gly Leu Ile Ser Thr Ala Arg Pro Ser Phe Met Asp Leu Pro Lys Ser  
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 195 200 205  
 Ser Ser Leu Lys Ile Asp Asp Thr Pro Val Asp Asp Pro Ser Leu Lys  
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 Ser Cys Pro His Val Ser Pro Ala Gly Ile Leu Cys Val Ala Asp Gln  
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 Cys His Gly Leu Arg Glu Leu Ala Leu Asn Tyr His Leu Leu Ser Asp  
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 275 280 285  
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 Thr Ile Gln Lys Ser Ser Trp Asp Ala Phe Ile Arg His Ser Pro Lys  
 305 310 315 320  
 Val Asn Leu Val Met Tyr Phe Phe Leu Tyr Glu Glu Glu Phe Asp Pro  
 325 330 335  
 Phe Phe Arg Tyr Glu Ile Pro Ala Thr His Leu Tyr Phe Gly Arg Ser  
 340 345 350  
 Val Ser Lys Asp Val Leu Gly Arg Val Gly Met Thr Cys Pro Arg Leu

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385	390	395
Gly Glu Cys Glu Val Ser Cys Ser Ala Phe Val Glu Phe Val Lys Met		
405	410	415
Cys Gly Gly Arg Leu Ser Gln Leu Ser Ile Met Glu Glu Val Leu Ile		
420	425	430
Pro Asp Gln Lys Tyr Ser Leu Glu Gln Ile His Trp Glu Val Ser Lys		
435	440	445
His Leu Gly Arg Val Trp Phe Pro Asp Met Met Pro Thr Trp		
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&lt;210&gt; 3513

&lt;211&gt; 2103

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3513

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&lt;211&gt; 484

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3514

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&lt;213&gt; Homo sapiens

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 Trp Pro Asp Pro Asp Phe Ser Ala Gly Arg Leu Cys Phe Pro Ser Ala  
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 Ile Val Ala Ser Phe Val Leu Ala Gly Glu Thr Glu Ala Thr Ala Leu  
 35 40 45  
 Gln Arg Met Pro Asp Arg Pro Thr Ser Arg Pro Leu Leu Val Arg Ala  
 50 55 60  
 Ser Leu Ser Pro Ser Gly Leu Gly Ala Cys Asp Thr Ala Leu Arg Pro  
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 <212> DNA  
 <213> Homo sapiens

<400> 3519  
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&lt;210&gt; 3520

&lt;211&gt; 303

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3520

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 Ala Gly Pro Gly Gln Gly Ser Ser Glu Lys Pro Lys Leu Gly Leu  
 20 25 30  
 Val Val Asn Leu Pro Pro Ala Gln Leu Ser Ser Ser Asp Glu Glu Thr  
 35 40 45  
 Arg Glu Glu Leu Ala Arg Ile Gly Leu Val Pro Pro Pro Glu Glu Phe  
 50 55 60  
 Ala Asn Gly Val Leu Leu Ala Thr Pro Leu Ala Gly Pro Gly Pro Ser  
 65 70 75 80  
 Pro Thr Thr Val Pro Ser Pro Ala Ser Gly Lys Pro Ser Ser Glu Pro  
 85 90 95  
 Pro Pro Ala Pro Glu Ser Ala Ala Asp Ser Gly Val Glu Glu Ala Asp  
 100 105 110  
 Thr Arg Ser Ser Ser Asp Pro His Leu Glu Thr Thr Ser Thr Ile Ser  
 115 120 125  
 Thr Val Ser Ser Met Ser Thr Leu Ser Ser Glu Ser Gly Glu Leu Thr  
 130 135 140  
 Asp Thr His Thr Ser Phe Ala Asp Gly His Thr Phe Leu Leu Glu Lys  
 145 150 155 160  
 Pro Pro Val Pro Pro Lys Pro Lys Leu Lys Ser Pro Leu Gly Lys Gly  
 165 170 175  
 Pro Val Thr Phe Arg Asp Pro Leu Leu Lys Gln Ser Ser Asp Ser Glu  
 180 185 190  
 Leu Met Ala Gln Gln His His Ala Ala Ser Ala Gly Leu Ala Ser Ala  
 195 200 205  
 Ala Gly Pro Ala Arg Pro Arg Tyr Leu Phe Gln Arg Arg Ser Lys Leu  
 210 215 220  
 Trp Gly Asp Pro Val Glu Ser Arg Gly Leu Pro Gly Pro Glu Asp Asp  
 225 230 235 240  
 Lys Pro Thr Val Ile Ser Glu Leu Ser Ser Arg Leu Gln Gln Leu Asn  
 245 250 255  
 Lys Asp Thr Arg Ser Leu Gly Glu Glu Pro Val Gly Gly Leu Gly Ser  
 260 265 270  
 Leu Leu Asp Pro Ala Lys Lys Ser Pro Ile Ala Ala Ala Arg Ser Pro  
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 Leu Ser Ser Leu Gly Leu Gly Gly Trp Tyr Val Asp Ala Thr Ser  
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&lt;210&gt; 3521

&lt;211&gt; 638

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3521

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<210> 3522

<211> 181

<212> PRT

<213> Homo sapiens

<400> 3522

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			20					25					30		
Gln	His	Ala	Asp	Gln	Gly	Pro	Pro	Gly	Pro	His	Leu	Asp	Leu	His	Gln
		35					40					45			
Asp	Leu	Gln	Ala	Glu	Pro	Leu	Arg	Pro	Ala	Gly	Leu	Gly	Gly	Gly	Leu
		50					55					60			
Leu	Arg	Cys	Gly	Leu	Pro	Ser	Glu	Gln	Arg	Ala	Ala	Gly	Glu	Ala	Arg
65						70				75					80
Gly	Leu	His	Leu	Leu	Gln	Asp	Pro	Thr	Pro	Gly	Arg	Leu	Cys	Gln	Ala
			85						90					95	
Pro	Ala	Gly	Pro	Pro	Gly	Gly	Gly	His	Gly	Pro	Ala	Gly	Arg	Gly	Gln
			100						105					110	
Pro	Ser	Arg	His	Arg	Pro	Gly	Glu	Pro	Gln	Gly	Gly	Arg	Gly	Gly	Xaa
		115					120					125			
Pro	Asp	Pro	Ser	Thr	Pro	Ser	Val	Arg	Gly	Ser	Gln	Arg	Thr	Ala	Ser
		130					135					140			
Pro	Gly	Arg	Ala	Ser	Pro	Gly	Gly	Cys	Pro	Glu	Ala	Thr	Gly	Trp	Cys
145						150				155					160
Cys	Arg	His	Thr	Arg	Ser	Ala	Pro	Thr	Pro	Leu	Leu	Pro	Pro	Cys	Pro
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<210> 3523

<211> 2614

<212> DNA

<213> Homo sapiens

<400> 3523

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 2580  
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&lt;210&gt; 3524

&lt;211&gt; 444

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3524

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Pro	Arg	Tyr	Phe	Thr	Trp	Asp	Glu	Val	Ala	Gln	Arg	Ser	Gly	Cys	Glu
	20						25						30		
Glu	Arg	Trp	Leu	Val	Ile	Asp	Arg	Lys	Val	Tyr	Asn	Ile	Ser	Asp	Phe
	35					40					45				
Ser	Arg	Arg	His	Pro	Gly	Gly	Ser	Arg	Val	Ile	Ser	His	Tyr	Ala	Gly
	50				55				60						
Gln	Asp	Ala	Thr	Asp	Pro	Phe	Val	Ala	Phe	His	Ile	Asn	Lys	Gly	Leu
65				70				75					80		
Val	Lys	Lys	Tyr	Met	Asn	Ser	Leu	Leu	Ile	Gly	Glu	Leu	Ser	Pro	Glu
		85					90						95		
Gln	Pro	Ser	Phe	Glu	Pro	Thr	Lys	Asn	Lys	Glu	Leu	Thr	Asp	Glu	Phe
		100					105						110		
Arg	Glu	Leu	Arg	Ala	Thr	Val	Glu	Arg	Met	Gly	Leu	Met	Lys	Ala	Asn

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      115      120      125
His Val Phe Phe Leu Leu Tyr Leu Leu His Ile Leu Leu Leu Asp Gly
      130      135      140
Ala Ala Trp Leu Thr Leu Trp Val Phe Gly Thr Ser Phe Leu Pro Phe
145      150      155      160
Leu Leu Cys Ala Val Leu Leu Ser Ala Val Gln Ala Gln Ala Gly Trp
      165      170      175
Leu Gln His Asp Phe Gly His Leu Ser Val Phe Ser Thr Ser Lys Trp
      180      185      190
Asn His Leu Leu His His Phe Val Ile Gly His Leu Lys Gly Ala Pro
      195      200      205
Ala Ser Trp Trp Asn His Met His Phe Gln His His Ala Lys Pro Asn
      210      215      220
Cys Phe Arg Lys Asp Pro Asp Ile Asn Met His Pro Phe Phe Phe Ala
225      230      235      240
Leu Gly Lys Ile Leu Ser Val Glu Leu Gly Lys Gln Lys Lys Lys Tyr
      245      250      255
Met Pro Tyr Asn His Gln His Lys Tyr Phe Phe Leu Ile Gly Pro Pro
      260      265      270
Ala Leu Leu Pro Leu Tyr Phe Gln Trp Tyr Ile Phe Tyr Phe Val Ile
      275      280      285
Gln Arg Lys Lys Trp Val Asp Leu Val Trp Met Ile Thr Phe Tyr Val
      290      295      300
Arg Phe Phe Leu Thr Tyr Val Pro Leu Leu Gly Leu Lys Ala Phe Leu
305      310      315      320
Gly Leu Phe Phe Ile Val Arg Phe Leu Glu Ser Asn Trp Phe Val Trp
      325      330      335
Val Thr Gln Met Asn His Ile Pro Met His Ile Asp His Asp Arg Asn
      340      345      350
Met Asp Trp Val Ser Thr Gln Leu Gln Ala Thr Cys Asn Val His Lys
      355      360      365
Ser Ala Phe Asn Asp Trp Phe Ser Gly His Leu Asn Phe Gln Ile Glu
      370      375      380
His His Leu Phe Pro Thr Met Pro Arg His Asn Tyr His Lys Val Ala
385      390      395      400
Pro Leu Val Gln Ser Leu Cys Ala Lys His Gly Ile Glu Tyr Gln Ser
      405      410      415
Lys Pro Leu Leu Ser Ala Phe Ala Asp Ile Ile His Ser Leu Lys Glu
      420      425      430
Ser Gly Gln Leu Trp Leu Asp Ala Tyr Leu His Gln
      435      440

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&lt;210&gt; 3525

&lt;211&gt; 1116

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3525

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120

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180



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 420  
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 1116

&lt;210&gt; 3526

&lt;211&gt; 304

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3526

Ile	Thr	Asp	Glu	Lys	Arg	Ile	Phe	Phe	Tyr	Ile	Val	Ala	Val	Ala	Asp
1				5					10					15	
Ala	Lys	Lys	Ser	Arg	Glu	Phe	Asn	Pro	Asn	Asn	Ser	Thr	Ala	Val	Leu
			20					25					30		
Arg	Lys	Gly	Ile	Cys	Glu	Tyr	His	Leu	Lys	Asn	Tyr	Ala	Ala	Ala	Leu
		35					40					45			
Glu	Thr	Phe	Ile	Gly	Gly	Gln	Lys	Leu	Xaa	Ala	Asp	Ala	Asn	Phe	Ser
	50					55					60				
Asp	Trp	Ile	Lys	Arg	Cys	Gln	Glu	Ala	Gln	Asn	Gly	Ser	Glu	Ser	Glu
65					70					75				80	
Val	Val	Met	Glu	Pro	Ala	Leu	Glu	Gly	Thr	Gly	Lys	Glu	Gly	Lys	Lys
				85				90					95		
Ala	Ser	Ser	Arg	Lys	Arg	Thr	Leu	Ala	Glu	Pro	Pro	Ala	Lys	Gly	Leu
			100				105					110			
Leu	Gln	Pro	Val	Lys	Leu	Ser	Arg	Ala	Glu	Leu	Tyr	Lys	Glu	Pro	Thr

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130	135	140
Ser Leu Leu Arg Leu Gln Val Glu Glu Leu Leu Lys Glu Val Arg Leu		
145	150	155
Ser Glu Lys Lys Lys Asp Arg Ile Asp Ala Phe Leu Arg Glu Val Asn		
165	170	175
Gln Arg Val Val Arg Val Pro Ser Val Pro Glu Thr Glu Leu Thr Asp		
180	185	190
Gln Ala Trp Leu Pro Ala Gly Val Arg Val Pro Leu His Gln Val Pro		
195	200	205
Tyr Ala Val Lys Gly Cys Phe Arg Phe Leu Pro Pro Ala Gln Val Thr		
210	215	220
Val Val Gly Ser Tyr Leu Leu Gly Thr Cys Ile Arg Pro Asp Ile Asn		
225	230	235
Val Asp Val Ala Leu Thr Met Pro Arg Glu Ile Leu Gln Asp Lys Asp		
245	250	255
Gly Leu Asn Gln Arg Tyr Phe Arg Lys Arg Ala Leu Tyr Leu Ala His		
260	265	270
Leu Ala His His Leu Ala Gln Asp Pro Leu Phe Gly Ser Val Cys Phe		
275	280	285
Ser Tyr Thr Asn Gly Cys His Leu Lys Pro Ser Leu Leu Leu Arg Pro		
290	295	300

&lt;210&gt; 3527

&lt;211&gt; 2838

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3527

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<400> 3528

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&lt;210&gt; 3529

&lt;211&gt; 3026

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&lt;400&gt; 3529

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 gta  
 723

&lt;210&gt; 3536

&lt;211&gt; 163

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3536

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 Ile Ala Gly Gly Asn Phe Glu Asp Gln Leu Arg Glu Glu Val Val Gln  
 20 25 30  
 Arg Val Ser Leu Leu Leu Leu Tyr Tyr Ile Ile His Gln Glu Glu Ile  
 35 40 45  
 Cys Ser Ser Lys Leu Asn Met Ser Asn Lys Glu Tyr Lys Phe Tyr Leu  
 50 55 60  
 His Ser Leu Leu Ser Leu Arg Gln Asp Glu Asp Ser Ser Phe Leu Ser  
 65 70 75 80  
 Gln Asn Glu Thr Glu Asp Ile Leu Ala Phe Thr Arg Gln Tyr Phe Asp  
 85 90 95  
 Thr Ser Gln Ser Gln Cys Met Glu Thr Lys Thr Leu Gln Lys Lys Ser  
 100 105 110  
 Gly Ile Val Ser Ser Glu Gly Ala Asn Glu Ser Thr Leu Pro Gln Leu  
 115 120 125  
 Ala Ala Met Ile Ile Thr Leu Ser Leu Gln Gly Val Cys Leu Gly Gln  
 130 135 140  
 Gly Asn Leu Pro Ser Pro Asp Tyr Phe Thr Glu Tyr Ile Phe Ser Ser

145  
Leu Asn Arg

150

155

160

&lt;210&gt; 3537

&lt;211&gt; 714

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3537

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&lt;210&gt; 3538

&lt;211&gt; 154

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3538

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Met His Ala His Thr Gly Pro Gly Pro Gly Pro Gln Ser Ser Cys Leu
1           5           10           15
Ser Trp Thr Leu Cys Lys His Phe Cys Ala Cys Trp Val Gly Ala Arg
20           25           30
Leu Lys Asp Pro Ser Ser Asn Pro Ala Gly Pro Arg Ala Thr Ala Gly
35           40           45
Gln Gly Val Ala Pro Gly Phe Arg His Ala Thr Thr Thr Arg Ala Arg
50           55           60
Ala Thr His Ala Ser Cys Ala His Leu Thr His Thr Pro Leu Pro Gly
65           70           75           80
His Ala Asp Thr Pro Gln Pro His Thr Ser His Ala Val His Leu Arg
85           90           95
Leu Leu Thr Ser His Ala Gln Cys Trp Cys Thr Phe Ala Ser His Met

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100 105 110  
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 115 120 125  
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<210> 3539

<211> 818

<212> DNA

<213> Homo sapiens

<400> 3539

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<210> 3540

<211> 180

<212> PRT

<213> Homo sapiens

<400> 3540

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 20 25 30  
 Thr Leu Gly Ser Ser Arg Ala Lys Leu Gly Asn Phe Pro Trp Gln Ala

```

      35          40          45
Phe Thr Ser Ile His Gly Arg Gly Gly Gly Ala Leu Leu Gly Asp Arg
  50          55          60
Trp Ile Leu Thr Ala Ala His Thr Val Tyr Pro Lys Asp Ser Val Ser
  65          70          75          80
Leu Arg Lys Asn Gln Ser Val Asn Val Phe Leu Gly His Thr Ala Ile
      85          90          95
Asp Glu Met Leu Lys Leu Gly Asn His Pro Val His Arg Val Val Val
      100          105          110
His Pro Asp Tyr Arg Gln Asn Glu Ser His Asn Phe Ser Gly Asp Ile
      115          120          125
Ala Leu Leu Glu Leu Gln His Ser Ile Pro Leu Gly Pro Asn Val Leu
      130          135          140
Pro Val Cys Leu Pro Asp Asn Glu Thr Leu Tyr Arg Ser Gly Leu Leu
  145          150          155          160
Gly Tyr Val Ser Gly Phe Gly Met Glu Met Gly Trp Leu Thr Thr Glu
      165          170          175
Leu Lys Tyr Ser
      180

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&lt;210&gt; 3541

&lt;211&gt; 722

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3541

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722

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&lt;210&gt; 3542

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 <212> PRT  
 <213> Homo sapiens

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 35 40 45  
 Arg Gln Glu Pro Asp Asn Thr Gly Val Leu Leu Leu Leu Ser Ser Ile  
 50 55 60  
 His Phe Gln Cys Arg Arg Leu Asp Arg Ser Ala His Phe Ser Thr Leu  
 65 70 75 80  
 Ala Ile Lys Gln Asn Pro Leu Leu Ala Glu Ala Tyr Ser Asn Leu Gly  
 85 90 95  
 Asn Val Tyr Lys Glu Arg Gly Gln Leu Gln Glu Ala Ile Glu His Tyr  
 100 105 110  
 Arg His Ala Leu Arg Leu Lys Pro Asp Phe Ile Asp Gly Tyr Ile Asn  
 115 120 125  
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 130 135 140  
 Ala Tyr Val Ser Ala Leu Gln Pro Gly  
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<210> 3543  
 <211> 1206  
 <212> DNA  
 <213> Homo sapiens

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<210> 3544

<211> 273

<212> PRT

<213> Homo sapiens

<400> 3544

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			20					25					30		
Lys	Ile	Val	Leu	Phe	Pro	His	Tyr	Glu	Glu	Gly	His	Ile	Pro	Gly	Ile
		35					40					45			
Leu	Ile	Ile	Ile	Phe	Tyr	Gly	Ile	Ser	Ile	Phe	Cys	Leu	Val	Ala	Leu
	50					55				60					
Val	Arg	Ala	Ser	Ile	Thr	Asp	Pro	Gly	Arg	Leu	Pro	Glu	Asn	Pro	Lys
65					70				75					80	
Ile	Pro	His	Gly	Glu	Arg	Glu	Phe	Trp	Glu	Leu	Cys	Asn	Lys	Cys	Asn
			85					90					95		
Leu	Met	Arg	Pro	Lys	Arg	Ser	His	His	Cys	Ser	Arg	Cys	Gly	His	Cys
			100					105					110		
Val	Arg	Arg	Met	Asp	His	His	Cys	Pro	Trp	Ile	Asn	Asn	Cys	Val	Gly
		115					120					125			
Glu	Asp	Asn	His	Trp	Leu	Phe	Leu	Gln	Leu	Cys	Phe	Tyr	Thr	Glu	Leu
	130					135					140				
Leu	Thr	Cys	Tyr	Ala	Leu	Met	Phe	Ser	Phe	Cys	His	Tyr	Tyr	Tyr	Phe
145					150				155					160	
Leu	Pro	Leu	Lys	Lys	Arg	Asn	Leu	Asp	Leu	Phe	Val	Phe	Arg	His	Glu
			165					170					175		
Leu	Ala	Ile	Met	Arg	Leu	Ala	Ala	Phe	Met	Gly	Ile	Thr	Met	Leu	Val
		180						185				190			
Gly	Ile	Thr	Gly	Leu	Phe	Tyr	Thr	Gln	Leu	Ile	Gly	Ile	Ile	Thr	Pro
	195						200					205			
Cys	Ser	Leu	Ile	Leu	Leu	Lys	Cys	Gly	Ser	Val	Ser	Asn	Asn	Ser	Leu



210	215	220
Gly Asp Leu Met Lys Ile Ser Glu Thr Phe Ala Leu Arg Ile Pro Ser		
225	230	235
Phe Val Val Met Cys Pro Glu Asn Ser Ser Leu Arg Val Phe Asn Ser		240
	245	250
Val Lys Leu Leu Cys Leu Asp Ser Pro Leu Ile Gln Trp Ser Thr		255
	260	265
		270

Lys

&lt;210&gt; 3545

&lt;211&gt; 3657

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3545

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&lt;210&gt; 3546

&lt;211&gt; 792

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3546

Val	Asn	Val	Trp	Arg	Val	Leu	Gly	Leu	Ala	Gln	Ala	Arg	Ala	Gly	Ala
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Gln	Glu	Val	Trp	Pro	Ile	Ile	Trp	Leu	Arg	Leu	Thr	Leu	Ala	Leu	Thr
				20				25					30		
Leu	Ala	Asp	Pro	Gly	Trp	Ala	Ser	Ile	Ser	Arg	Gly	Val	Leu	Val	Cys
		35					40					45			
Asp	Glu	Cys	Cys	Ser	Val	His	Arg	Ser	Leu	Gly	Arg	His	Ile	Ser	Ile
	50					55					60				
Val	Lys	His	Leu	Arg	His	Ser	Ala	Trp	Pro	Pro	Thr	Leu	Leu	Gln	Met
65				70					75					80	
Val	His	Thr	Leu	Ala	Ser	Asn	Gly	Ala	Asn	Ser	Ile	Trp	Glu	His	Ser
				85				90					95		
Leu	Leu	Asp	Pro	Ala	Gln	Val	Gln	Ser	Gly	Arg	Arg	Lys	Ala	Asn	Pro
			100					105					110		
Gln	Asp	Lys	Val	His	Pro	Ile	Lys	Ser	Glu	Phe	Ile	Arg	Ala	Lys	Tyr
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2708

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480
tggacagtga atgaagctct aattcagaaa tggctgagct atccttctgg aaggtttcct
540

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 600  
 tttttagctg ttagcaatga tgatcactat agaacaggta ccagattttc aggggttgat  
 660  
 atgaatgctg ctaggctttt attccacaaa cttatacaac ctgatcatcc gcagatatct  
 720  
 cagcagggtgg cagctagttt ggaaaagaat cttattccta aactgactag ctccttacct  
 780  
 gatgttgaag cattgaggtt ttatcttact ctaccagaat gtccccgat gagtgattcc  
 840  
 aacaatttca taacaatagc aattcccttt ggtacagctc ttgtgaacct agaaaaggca  
 900  
 ccactgaaag tacttgaaaa ctgggtggtca gtacttgaac ctccactatt cctcaagata  
 960  
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 1020  
 ctttctgaaa gaataatta  
 1039

&lt;210&gt; 3548

&lt;211&gt; 346

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3548

Arg	Ser	Gln	Lys	Ile	Val	Tyr	Ile	Cys	Cys	Gly	Glu	Asp	His	Thr	Ala
1				5					10					15	
Ala	Leu	Thr	Lys	Glu	Gly	Gly	Val	Phe	Thr	Phe	Gly	Ala	Gly	Gly	Tyr
			20					25					30		
Gly	Gln	Leu	Gly	His	Asn	Ser	Thr	Ser	His	Glu	Ile	Asn	Pro	Arg	Lys
		35					40					45			
Val	Phe	Glu	Leu	Met	Gly	Ser	Ile	Val	Thr	Glu	Ile	Ala	Cys	Gly	Arg
	50					55					60				
Gln	His	Thr	Ser	Ala	Phe	Val	Pro	Ser	Ser	Gly	Arg	Ile	Tyr	Ser	Phe
65					70					75					80
Gly	Leu	Gly	Gly	Asn	Gly	Gln	Leu	Gly	Thr	Gly	Ser	Thr	Ser	Asn	Arg
				85					90					95	
Lys	Ser	Pro	Phe	Thr	Val	Lys	Gly	Asn	Trp	Tyr	Pro	Tyr	Asn	Gly	Gln
			100					105					110		
Cys	Leu	Pro	Asp	Ile	Asp	Ser	Glu	Glu	Tyr	Phe	Cys	Val	Lys	Arg	Ile
		115					120					125			
Phe	Ser	Gly	Gly	Asp	Gln	Ser	Phe	Ser	His	Tyr	Ser	Ser	Pro	Gln	Asn
	130					135					140				
Cys	Gly	Pro	Pro	Asp	Asp	Phe	Arg	Cys	Pro	Asn	Pro	Thr	Lys	Gln	Ile
145					150					155					160
Trp	Thr	Val	Asn	Glu	Ala	Leu	Ile	Gln	Lys	Trp	Leu	Ser	Tyr	Pro	Ser
				165					170					175	
Gly	Arg	Phe	Pro	Val	Glu	Ile	Ala	Asn	Glu	Ile	Asp	Gly	Thr	Phe	Ser
			180					185					190		
Ser	Ser	Gly	Cys	Leu	Asn	Gly	Ser	Phe	Leu	Ala	Val	Ser	Asn	Asp	Asp
		195					200						205		
His	Tyr	Arg	Thr	Gly	Thr	Arg	Phe	Ser	Gly	Val	Asp	Met	Asn	Ala	Ala
	210					215						220			
Arg	Leu	Leu	Phe	His	Lys	Leu	Ile	Gln	Pro	Asp	His	Pro	Gln	Ile	Ser

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<210> 3549
<211> 2542
<212> DNA
<213> Homo sapiens
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120
agatatgaga aaattcatgg aagaagtaag gaaaaggaga gagctagtct agataaaaaa
180
agagataaag actacagaag gaaagagatc ttgccttttg aaaagatgaa ggaacaaagg
240
ttgagagaac atttagttcg ttttgaaagg ctgcgacgag caatggaact tcgaagacga
300
agagagattg cagagagaga gcgtcgagag cgagaacgca ttagaataat tcgtgaacgg
360
gaagaacggg aacgcttaca gagagagaga gagcgcctag aaattgaaag gcaaaaaacta
420
gagagagaga gaatggaacg cgaacgcttg gaaagggaac gcattcgtat tgaacaggaa
480
cgtcgtaagg aagctgaacg gattgctcga gaaagagagg aactcagaag gcaacaacag
540
cagcttcggt atgaacaaga aaaaaggaat tccttgaaac gccacgctga tgtagatcat
600
aggcgagatg atccttactg gagcgagaat aaaaagttgt ctctagatac agatgcacga
660
tttggccatg gatccgacta ctctcgccaa cagaacagat ttaatgactt tgatcaccga
720
gagaggggca ggtttctcga gagttcagca gtacagtctt catcttttga aaggcgggat
780
cgctttgttg gtcaaagtga ggggaaaaaa gcacgaccta ctgcacgaag ggaagatcca
840
agcttcgaaa gatatcccaa aaatttcagt gactccagaa gaaatgagcc tccaccacca
900
agaaatgaac ttagagaatc agacaggcga gaagtacgag gggagcgaga cgaaagggaga
960

```

acggtgatta ttcatgacag gcctgatatc actcatccta gacatcctcg agaggcaggg  
1020  
cccaatcctt ccagaccac cagctggaaa agtgatggaa gcatgtccac tgacaaacgg  
1080  
gaaacaagag ttgaaaggcc agaacgatct gggagagaag taticaggga cagtgtgaga  
1140  
ggcgctcccc ctgggaatcg tagcagcgct tcgggggtacg ggagcagaga gggagacaga  
1200  
ggagtcatca cagaccgagg aggtggatca cagcactatc ctgaggagcg acatgtggtt  
1260  
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1320  
gggcctagct atcatgatac gaggcgaatg ggtgacggcc gggcaggagc aggcattgata  
1380  
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1440  
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1500  
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1560  
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taaaaattta acatgattgc ttttctcaat tttggagaag atgtttaaat agttctgttg  
1680  
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1860  
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1920  
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1980  
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2040  
atcttttttg aaataaacct tcatattctg tatagttgct aaagtgttga gaaccttttt  
2100  
aattgtaaaa tgagaaccga ttttcagttt agtgtagcag cacacttggt caggtttgca  
2160  
tggtatgaaa ccaaatagat tcatgaaacc ttggccatga ggtttgtttc acaaggttct  
2220  
tagaccgagt tgtgcaggta agtgcacttt taggtaatct gcactgtttg tttgatggat  
2280  
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2340  
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2400  
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2460  
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2520  
aaaaaaaaaa aaaaaaaaaa aa  
2542



&lt;210&gt; 3550

&lt;211&gt; 500

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3550

Gln Thr Ser Glu Ser Ile Lys Lys Ser Glu Glu Lys Lys Arg Ile Ser  
 1 5 10 15  
 Ser Lys Ser Pro Gly His Met Val Ile Leu Asp Gln Thr Lys Gly Asp  
 20 25 30  
 His Cys Arg Pro Ser Arg Arg Gly Arg Tyr Glu Lys Ile His Gly Arg  
 35 40 45  
 Ser Lys Glu Lys Glu Arg Ala Ser Leu Asp Lys Lys Arg Asp Lys Asp  
 50 55 60  
 Tyr Arg Arg Lys Glu Ile Leu Pro Phe Glu Lys Met Lys Glu Gln Arg  
 65 70 75 80  
 Leu Arg Glu His Leu Val Arg Phe Glu Arg Leu Arg Arg Ala Met Glu  
 85 90 95  
 Leu Arg Arg Arg Arg Glu Ile Ala Glu Arg Glu Arg Arg Glu Arg Glu  
 100 105 110  
 Arg Ile Arg Ile Ile Arg Glu Arg Glu Glu Arg Glu Arg Leu Gln Arg  
 115 120 125  
 Glu Arg Glu Arg Leu Glu Ile Glu Arg Gln Lys Leu Glu Arg Glu Arg  
 130 135 140  
 Met Glu Arg Glu Arg Leu Glu Arg Glu Arg Ile Arg Ile Glu Gln Glu  
 145 150 155 160  
 Arg Arg Lys Glu Ala Glu Arg Ile Ala Arg Glu Arg Glu Glu Leu Arg  
 165 170 175  
 Arg Gln Gln Gln Gln Leu Arg Tyr Glu Gln Glu Lys Arg Asn Ser Leu  
 180 185 190  
 Lys Arg Pro Arg Asp Val Asp His Arg Arg Asp Asp Pro Tyr Trp Ser  
 195 200 205  
 Glu Asn Lys Lys Leu Ser Leu Asp Thr Asp Ala Arg Phe Gly His Gly  
 210 215 220  
 Ser Asp Tyr Ser Arg Gln Gln Asn Arg Phe Asn Asp Phe Asp His Arg  
 225 230 235 240  
 Glu Arg Gly Arg Phe Pro Glu Ser Ser Ala Val Gln Ser Ser Ser Phe  
 245 250 255  
 Glu Arg Arg Asp Arg Phe Val Gly Gln Ser Glu Gly Lys Lys Ala Arg  
 260 265 270  
 Pro Thr Ala Arg Arg Glu Asp Pro Ser Phe Glu Arg Tyr Pro Lys Asn  
 275 280 285  
 Phe Ser Asp Ser Arg Arg Asn Glu Pro Pro Pro Pro Arg Asn Glu Leu  
 290 295 300  
 Arg Glu Ser Asp Arg Arg Glu Val Arg Gly Glu Arg Asp Glu Arg Arg  
 305 310 315 320  
 Thr Val Ile Ile His Asp Arg Pro Asp Ile Thr His Pro Arg His Pro  
 325 330 335  
 Arg Glu Ala Gly Pro Asn Pro Ser Arg Pro Thr Ser Trp Lys Ser Asp  
 340 345 350  
 Gly Ser Met Ser Thr Asp Lys Arg Glu Thr Arg Val Glu Arg Pro Glu  
 355 360 365  
 Arg Ser Gly Arg Glu Val Ser Gly His Ser Val Arg Gly Ala Pro Pro

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      370              375              380
Gly Asn Arg Ser Ser Ala Ser Gly Tyr Gly Ser Arg Glu Gly Asp Arg
385              390              395              400
Gly Val Ile Thr Asp Arg Gly Gly Gly Ser Gln His Tyr Pro Glu Glu
      405              410              415
Arg His Val Val Glu Arg His Gly Arg Asp Thr Ser Gly Pro Arg Lys
      420              425              430
Glu Trp His Gly Pro Pro Ser Gln Gly Pro Ser Tyr His Asp Thr Arg
      435              440              445
Arg Met Gly Asp Gly Arg Ala Gly Ala Gly Met Ile Thr Gln His Ser
      450              455              460
Ser Asn Ala Ser Pro Ile Asn Arg Ile Val Gln Ile Ser Gly Asn Ser
465              470              475              480
Met Pro Arg Gly Ser Gly Ser Gly Phe Lys Pro Phe Lys Gly Gly Pro
      485              490              495
Pro Arg Arg Phe
      500

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&lt;210&gt; 3551

&lt;211&gt; 545

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3551

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atcttcttaag ataattgaga aagataaaact tcttttttcag gaggggtccat cttcctgcc
120
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180
gctgagcacc tgttttatctt cacactccct tgattcctgg ggtaaattccc atctccgcag
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300
taacccact gtttatcgac aggttctcag gaatcagata gctcgcagtc ggccaagaag
360
gacatgctgg ctgccttgaa gtccaggcag gaagctctgg aggaaccct gcgtcagagg
420
ctggaggaac tgaagaagct gtgtctccga gaagctgtaa gcctttccta gtcacatccc
480
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540
gtcat
545

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&lt;210&gt; 3552

&lt;211&gt; 55

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3552

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Pro His Cys Leu Ser Thr Gly Ser Gln Glu Ser Asp Ser Ser Gln Ser
1              5              10              15
Ala Lys Lys Asp Met Leu Ala Ala Leu Lys Ser Arg Gln Glu Ala Leu

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	20		25		30										
Glu	Glu	Thr	Leu	Arg	Gln	Arg	Leu	Glu	Glu	Leu	Lys	Lys	Leu	Cys	Leu
	35		40		45										
Arg	Glu	Ala	Val	Ser	Leu	Ser									
	50		55												

&lt;210&gt; 3553

&lt;211&gt; 1412

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3553

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 120  
 gatgaccagc tcaacatcct gcccatctcc tcccaggtg ccaccatgga ggcctgcct  
 180  
 cccagactc cggatgagag tcttggtcct tctgatctgg agctgagga gttgaaggag  
 240  
 agcttgagg acaccagcc tgtgggtgtg ttggtggact gctgtaagac tctagaccag  
 300  
 gccaaagctg tcttgaaatt tatcgagggc atctctgaaa agaccctgag gagtactgtt  
 360  
 gcactcacag ctgctcgagg acggggaaaa tctgcagccc tgggattggc gattgctggg  
 420  
 gcggtggcat ttgggtactc caatatcttt gttacctccc caagccctga taacctccat  
 480  
 actctgtttg aatttgtatt taaaggattt gatgctctgc aatatcagga acatctggat  
 540  
 tatgagatta tccagtctct aaatcctgaa ttaacaaag cagtgatcat agtgaatgta  
 600  
 tttcgagaac acaggcagac tattcagtat atacatcctg cagatgctgt gaagctgggc  
 660  
 caggctgaac tagttgtgat tgatgaagct gccgccatcc ccctccctt ggtgaagagc  
 720  
 ctacttggcc cctaccttgt tttcatggca tccaccatca atggctatga gggcactggc  
 780  
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 900  
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 960  
 ctgaatgact tgctgtgcct ggattgcctc aacatcactc ggatagtctc aggctgcccc  
 1020  
 ttgctgaag cttgtgaact gtactatgtt aatagagata ccctcttttg ctaccacaag  
 1080  
 gcctctgaag ttttctcca acggcttatg gcctctacg tggcttctca ctacaagaac  
 1140  
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 1200  
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 1260

gaacagagggc gtccttgtgg cagtgatttg gggaaccact gaggcacag gaattagtgg  
 1320  
 ctttaataact gcattgtggg agttttgaaa ctgtggagtc ctggctctgga accaaggggc  
 1380  
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 1412

<210> 3554

<211> 419

<212> PRT

<213> Homo sapiens

<400> 3554

Tyr	Thr	Val	Thr	Met	Asp	Val	His	Ser	Arg	Tyr	Arg	Thr	Glu	Ala	His
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Gln	Asp	Val	Val	Gly	Arg	Phe	Asn	Glu	Arg	Phe	Ile	Leu	Ser	Leu	Ala
		20						25					30		
Ser	Cys	Lys	Lys	Cys	Leu	Val	Ile	Asp	Asp	Gln	Leu	Asn	Ile	Leu	Pro
	35						40					45			
Ile	Ser	Ser	His	Val	Ala	Thr	Met	Glu	Ala	Leu	Pro	Pro	Gln	Thr	Pro
	50					55					60				
Asp	Glu	Ser	Leu	Gly	Pro	Ser	Asp	Leu	Glu	Leu	Arg	Glu	Leu	Lys	Glu
65					70				75					80	
Ser	Leu	Gln	Asp	Thr	Gln	Pro	Val	Gly	Val	Leu	Val	Asp	Cys	Cys	Lys
			85					90					95		
Thr	Leu	Asp	Gln	Ala	Lys	Ala	Val	Leu	Lys	Phe	Ile	Glu	Gly	Ile	Ser
		100						105					110		
Glu	Lys	Thr	Leu	Arg	Ser	Thr	Val	Ala	Leu	Thr	Ala	Ala	Arg	Gly	Arg
		115					120					125			
Gly	Lys	Ser	Ala	Ala	Leu	Gly	Leu	Ala	Ile	Ala	Gly	Ala	Val	Ala	Phe
	130					135					140				
Gly	Tyr	Ser	Asn	Ile	Phe	Val	Thr	Ser	Pro	Ser	Pro	Asp	Asn	Leu	His
145				150					155					160	
Thr	Leu	Phe	Glu	Phe	Val	Phe	Lys	Gly	Phe	Asp	Ala	Leu	Gln	Tyr	Gln
			165					170						175	
Glu	His	Leu	Asp	Tyr	Glu	Ile	Ile	Gln	Ser	Leu	Asn	Pro	Glu	Phe	Asn
		180						185				190			
Lys	Ala	Val	Ile	Ile	Val	Asn	Val	Phe	Arg	Glu	His	Arg	Gln	Thr	Ile
	195					200						205			
Gln	Tyr	Ile	His	Pro	Ala	Asp	Ala	Val	Lys	Leu	Gly	Gln	Ala	Glu	Leu
	210					215					220				
Val	Val	Ile	Asp	Glu	Ala	Ala	Ala	Ile	Pro	Leu	Pro	Leu	Val	Lys	Ser
225				230					235					240	
Leu	Leu	Gly	Pro	Tyr	Leu	Val	Phe	Met	Ala	Ser	Thr	Ile	Asn	Gly	Tyr
			245					250						255	
Glu	Gly	Thr	Gly	Arg	Ser	Leu	Ser	Leu	Lys	Leu	Ile	Gln	Gln	Leu	Arg
		260						265					270		
Gln	Gln	Ser	Ala	Gln	Ser	Gln	Val	Ser	Thr	Thr	Ala	Glu	Asn	Lys	Thr
	275					280						285			
Thr	Thr	Thr	Ala	Arg	Leu	Ala	Ser	Ala	Arg	Thr	Leu	His	Glu	Val	Ser
	290					295					300				
Leu	Gln	Glu	Ser	Ile	Arg	Tyr	Ala	Pro	Gly	Asp	Ala	Val	Glu	Lys	Trp
305				310					315					320	
Leu	Asn	Asp	Leu	Leu	Cys	Leu	Asp	Cys	Leu	Asn	Ile	Thr	Arg	Ile	Val

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<210> 3555
<211> 1038
<212> DNA
<213> Homo sapiens
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180
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240
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360
aaaaagcgag gcgacggctt aaagatggag aacgaccccc aggaggcgga gtctgaaatg
420
gccctgggatg ctgagttcct ggacgtgtac aagaactgca acggggtggt catgatgttc
480
gacattacca agcagtggac cttcaattac attctccggg agcttccaaa agtgcccacc
540
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600
tgccggacgn acgtgcgtga cttcatcgac aacctggaca gacctccagg ttcctcctac
660
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720
ttcaatatcc catttttgca gcttcagagg gagacgctgt tgcggcagct ggagacgaac
780
cagctggaca tggacgccac gctggaggag ctgtcgggtgc agcaggagac ggaggaccag
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900
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1020

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<210> 3557
<211> 486
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